AN HISTORICAL ACCOUNT OF THE CLIMATES AND DISEASES OF THE UNITED STATES OF AMERICA;

AND OF

THE REMEDIES AND METHODS OF TREATMENT, WHICH HAVE BEEN FOUND MOST USEFUL AND EFFICACIOUS, *PARTICULARLY* IN THOSE DISEASES WHICH DEPEND UPON CLIMATE AND SITUATION.

COLLECTED PRINCIPALLY FROM PERSONAL OBSERVATION,

AND

THE COMMUNICATIONS OF PHYSICIANS OF TALENTS AND EXPERIENCE, RESIDING IN THE SEVERAL STATES.

By WILLIAM CURRIE,
Fellow of the College of Phyſicians of Philadelphia.

Nullius addictus jurare in verba magiſtri.—Hor.

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BRITISH MUSEUM

TO

JOHN REDMAN, M.D.

PRESIDENT OF THE COLLEGE OF PHYSICIANS
OF
PHILADELPHIA, &c.

Worthy Sir,

DESIROUS of paying my reſpects to a man diſtinguiſhed for liberality of ſentiment, and conſiſtency of conduct, as well as for profeſſional talents, and encouraged by the indulgence you have ſhewn to ſuch literary productions as have utility and the intereſts of the community for their object, I have ventured to inſcribe the following work to you: and I requeſt you to do me the honour of accepting it, not as a compliment of mere civility, but as a tribute of gratitude and attention, to which you are juſtly entitled from

Your much obliged and
Very humble ſervant,
THE AUTHOR.

Philadelphia, Dec. 29, 1791.

INTRODUCTION.

I WAS induced to undertake the troubleſome and difficult taſk of collecting and publiſhing a conciſe and faithful account of the Climates and Diſeaſes of the United States of America, by a deſire of removing the trouble and inconvenience which reſult from accommodating the rules of practice and forms of preſcription made in other countries to the diſeaſes which occur in this, where the climate, ſoil, and modes of living of the inhabitants, and of courſe their conſtitutions, and the ſemicology of diſeaſes, even of the ſame genus, are in many reſpects different; and by a preſumption, that ſuch an account might contribute in ſome meaſure to improve the treatment of epidemics, eſpecially in this country.

WITH theſe objects in view, I opened a correſpondence with ſeveral phyſicians of talents and experience reſiding in the ſeveral ſtates, and with their aſſiſtance, joined to my own perſonal obſervations, and ſuch information as I could collect from the few books which contain any thing relative to the ſubject, have compoſed the following pages; in which I have endeavoured to exhibit, a ſynopſis or general view of the ſituation and climate of each ſtate; and of thoſe diſeaſes in particular which depend upon climate and ſituation, (with occaſional remarks on others); and an account of the remedies and methods of treatment which have been found moſt uniformly ſucceſsful.

As health is a bleſſing which enhances the value of every enjoyment, and long life the natural deſire of all mankind, I have endeavoured to point out the circumſtances moſt favourable thereto, as well as thoſe productive of diſeaſe and death. For this purpoſe I have inſerted a number of meteorological tables and bills of mortality.

As climate and ſituation have a remarkable influence upon the conſtitution and health, as well as upon the complexion and figure of mankind, and as the temperature of climate depends upon various circumſtances beſides latitude, or proximity to the equator; I have been at ſome pains in endeavouring to ſhew what thoſe circumſtances are, the cauſes on which they depend, and the means by which they may be altered.

In the inveſtigation of the nature and cauſes of diſeaſes, and in determining the effects of remedies, I have been uniformly governed by actual experience, never by hypotheſis or plauſible conjectures, being convinced that for want of this precaution, the ſchools of phyſic have ſucceſſively fallen into the moſt incongruous and palpable errors, and the greateſt maſters of reaſoning have proved the moſt unſucceſsful interpreters of nature's laws.

But I am by no means an advocate for the excluſion of reaſoning or theory (founded on cautious and judicious induction) from medical purſuits, as has unfortunately of late become too much the faſhion.

For without reaſoning, it would be impoſſible to acquire a knowledge of the proximate cauſes of diſeaſes, or the particular conditions of the ſyſtem on which the ſymptoms of diſeaſes depend.

And as there are ſeveral diſeaſes of a different nature, and produced by cauſes entirely different in their operation, which have many ſymptoms in common; the practitioner who is not poſſeſſed of this knowledge, muſt inevitably commit many fatal miſtakes.

But this knowledge ſo indiſpenſibly neceſſary to enable a phyſician to diſtinguiſh one ſpecies of diſeaſe from another, as well as to diſcover the indications he ought to purſue in the cure, can only be acquired, (after a previous acquaintance with the ſtructure, connection of parts, and œconomy of the human body in a ſound and healthy ſtate) by much ſtudy and reflection, and by the ſtricteſt enquiry into the condition of the ſeveral functions of the body in diſeaſe.

Whoever therefore undertakes the cure of diſeaſes without this knowledge is an empiric, and merits the contempt and deteſtation of every one who values the lives and ſafety of his fellow-creatures; for "though he may kill by licence, he can only cure by chance."

The annals of every age, and the bills of mortality of every country, would, if unveiled, produce proofs as ſtrong as thoſe of Holy Writ, that more lives have been deſtroyed by the villainy of quacks, and the ignorance and officiouſneſs of noſtrum-mongers, than by diſeaſe, owing to the credulity of the ignorant, and the remiſſneſs of government: I am, therefore, much ſurpriſed that our enlightened legiſlatures (whoſe duty it is to protect the lives as well as the privileges and property of thoſe whom ignorance or want of information renders liable to impoſition) have never yet made proviſion to prevent the like deplorable effects in this country.

The difficulty of obtaining authentic and ſatisfactory information on a ſubject never before attempted in America, has obliged me to leave many parts mutilated and imperfect; and want of ſufficient leiſure has prevented me from paying requiſite attention to ſyſtematic arrangement; but as the work has ſome claim to originality, abounds with a number of intereſting facts, and is intended as an introduction to a complete ſyſtem of practice, (now ready for the preſs,) exhibiting all the lateſt and moſt important diſcoveries which have been made in medicine, I truſt it will meet with that candour and indulgence to which the beſt intentions are entitled.

Philadelphia, Dec. 29, 1791.

AN HISTORICAL ACCOUNT OF THE CLIMATES AND DISEASES OF THE UNITED STATES OF AMERICA.

An ACCOUNT *of the* DISEASES *which occur in the ſeveral States of* NEW-ENGLAND, *viz.* NEW-HAMPSHIRE, MASSACHUSETTS, RHODE-ISLAND *and* CONNECTICUT.

"THE Diſeaſes which occur in different parts of theſe ſtates in the Winter and Spring Seaſons among the farmers and mechanics who reſide at a diſtance from the larger trading cities and towns, are principally the Catarrh—Quinſy—Pleuriſy—Rheumatiſm—Tooth-Ach—Inflammation of the

Inteſtines, or of the Peritonæum—Hectic fevers from internal Abſceſſes—Phlegmons—Eryſipelas—Opthalmia, or Sore Eyes—Spitting of Blood—Bleeding at the Noſe—Piles—and ſometimes, but rarely, the Scurvy, in families that live ſlovenly and eat nothing but ſalt meat and ſtale butter."

"The greateſt number of the diſorders which have been enumerated are found to be leſs frequent in Winter than in the Spring."

The winds which prevail during the greateſt part of Winter, from the north and north weſt, though they are ſevere and piercing cold, occaſioned by the great body of ſnow which covers the immenſe mountains over which they paſs, inſtead of producing diſeaſes, (by whatever mode of operation cold air acts upon animal bodies,) give vigor to the conſtitutions, and a freſhneſs and bloom to the complexion of the inhabitants, unknown in ſouthern climates.

"In the early part of the Spring, 'while the ſeaſon as yet is unconfirmed, and oft at eve reſumes the chilly blaſt,' thoſe diſeaſes are more frequent, but even then they are commonly the effect of imprudent expoſure to cold and rainy weather, getting the feet wet, ſitting on the damp ground, ſleeping in damp ſheets, neglecting to change wet clothes after expoſure to the rain, &c. &c. or from frequent exceſſes or debauches in ſtrong liquor, eſpecially of freſh diſtilled rum."

"THE Small-Pox, which is an exotic diſeaſe, depending on ſpecific infection, though once permitted, is not allowed at preſent to be communicated by inoculation in theſe ſtates*. Whenever it happens to appear in the natural way, all intercourſe is avoided with the infected, except by thoſe who have had the diſeaſe; and theſe laſt are excluded from all ſociety after their attendance on the ſick, till they have performed quarentine, after the manner of thoſe in other countries who have been infected with the Plague."

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* Nor in any of the ſtates, except New-York, New-Jerſey, Pennſylvania, Delaware and South-Carolina.

"The diſeaſes which occur in the ſummer and autumnal ſeaſons are very few and rare. Thoſe moſt commonly met with on high and dry ſituations, are, Phrenitis from Inſolation, Diarrhœas, Choleras, a ſpecies of fever attended with ſymptoms of great debility, without being infectious or accompanied with any ſymptom indicative of inflammatory Diatheſis.—This fever is confined to perſons who have been over-fatigued by hard labour during the hot weather."

"In low marſhy ſituations, where there is much ſtagnant water, and which are ſubject to great inundations from the Spring freſhes, intermittents ſometimes occur; and when the Summers have been remarkably hot and dry, Remittents, accompanied with bilious ſymptoms, have frequently been obſerved to prevail—In the ſame ſituations and under apparently ſimilar circumſtances, the Dyſentery alſo ſometimes occurs, but more particularly among thoſe who live on vegetable diet and watery drinks."

"In the populous city of Boſton, where

people of different occupations and profeſſions are collected together, the catalogue of diſeaſes is greater, and they are more complex and difficult to cure."—This is the caſe in all large cities where the houſes are built cloſe together, and the occupations of the inhabitants are unfavourable to exerciſe; and the more ſo, as they recede from habits of temperance; eſpecially where luxury and faſhion take the lead of reaſon and common ſenſe.

The farmer while he tames the ſtubborn ſoil and forces it to reward his labours, inſenſibly acquires vigour of body and reſolution of mind, and at the ſame time reſpires a ſalubrious air; but manufacturers and mechanics, confined to ſedentary occupations, or condemned to vegetate in cellars and cloſe apartments, breathe infection, and their minds become contracted as well as their lives abridged.

In addition to the diſeaſes already mentioned, the following may be numbered as occurring occaſionally, though they can not be aſcribed to any peculiarity of climate, ſoil, or local ſituation.

"CYNANCHE Maligna, or Putrid Quinſy, Scarlatina Anginoſa--Hepatitis--Nephritis--Podagra, or Gout--Phthiſis Pulmonalis, (very frequent)--Epilepſy--Apoplexy—Palſy--Aſthma—Hooping Cough---Colic—Inſanity--Melancholy--all the varieties of Dropſy--Hypochondria--Hyſteria--Scrophula, &c."

As the cauſes of theſe will be explained hereafter, I ſhall only obſerve in this place, that though a courſe of intemperance never fails of being deſtructive to health in a longer or ſhorter time, it is much ſlower in producing its effects in theſe northern ſtates than in thoſe to the ſouthward—Many have been known to live in a high and dry ſituation in the daily habit of intoxication to old age; and thoſe called ſoakers or tiplers, who drink a pint or two of rum, or half a gallon or a gallon of cyder per day, and make uſe of moderate exerciſe, are ſeldom known to be troubled with any complaint, but that of hard times and ſcarcity of money. But the vice of drunkenneſs does not predominate in this country, as Monteſquieu obſerves it does through others, in proportion to the coldneſs of the climate. *Vide* Spirit of Laws, Book 14th.

"IN the ſpring ſeaſon the inhabitants of Boſton are much ſubject to catarrhal affections or coughs, owing to the coldneſs and moiſture of the winds which prevail there at this ſeaſon. Theſe begin to riſe about ten o'clock, A. M. and continue to blow till near ſunſet."

DOCTOR *Iſaac Senter*, in a letter to the author, dated Newport*, (Rhode-Iſland) Feb. 19th, 1791, informs him that "The epidemics, as well as moſt of the infectious diſeaſes which viſit this iſland, differ in ſome reſpects very conſiderably from the ſame complaints in the other ſea ports of New-England—The Dyſentery is not only leſs frequent here, but is generally much leſs mortal. The remitting fevers of the ſummer and autumn are ſeldom fatal, and the Putrid Fever, though rarely a native of this iſland, generally occurs in cold weather.

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* Newport and Providence are the two principal towns in this ſtate: The former lies in latitude 41°, 35′; contains 1000 houſes, chiefly of wood, and 5530 inhabitants. This iſland is 68 miles in length and 40 in breadth. Providence about 30 miles N. W. of Newport—contains 700 houſes.

"The infectious diſeaſes which I have ſeen here, all except the ſmall-pox, are more mild than elſewhere.

"Since my remembrance the genuine Intermitting Fever, was very common in different parts of the inland country of New-England; but for twenty years paſt has ſeldom been met with any where eaſt of New-York."

Dr. Senter farther remarks, "That the reigning epidemics of the different ſeaſons in New-England, are very ſimilar, and the Intermitting Fever is not the only diſeaſe that has become very rare within theſe laſt twenty years.

"People in this ſtate are frequently affected with the Diarrhœa or Cholera, after having uſed violent exertions in the harveſt field, expoſed to the inſufferable blaze of the ſun, after they have eaten too freely of vegetable ſubſtances and freſh meats, and have drank ſuch drinks as have not been ſufficiently fermented.

"THE moderate uſe of rum at ſuch a time has been found ſerviceable, as it reſtrains fermentation and prevents debility or relaxation. It alſo prevents the ill effects which are frequently occaſioned by drinking cold water when the body is heated by exerciſe, and debilitated by the action of exceſſive heat."

IN this laſt circumſtance, laudanum in ſmall doſes mixed with hot toddy or ſtrong tea, and frequently reſumed, is a ſovereign remedy.

THOUGH Connecticut appears to be ſubject to nearly equal degrees of the extremes of cold and heat with Maſſachuſetts and New-Hampſhire, and to more frequent and ſudden changes of weather, it appears from its almoſt incredibly rapid increaſe of population to be more healthy than either of them—but if the reports of travellers are to be credited, it is leſs ſo than Rhode-Iſland, which is emphatically called the *Garden of Eden.*

THE heats in ſummer, which are extreme in other parts of New-England, are allayed in Rhode-Iſland by the cool and refreſhing breezes from the ſea. This is to be underſtood of thoſe parts which approach the ſea coaſt—farther back in the country the ſea breezes have leſs effect, and the weather is conſequently leſs variable. In winter, however, they pay dearly for theſe advantages from expoſure to the N. W. wind, the tyrant of this country, which renders this iſland bleak and uncomfortable.

DR. Foulke, in a diſcourſe which he read lately before the American Philoſophical Society obſerves, that, " in other countries, men are divided, according to their wealth or indigence, into three claſſes. The opulent, the middling, and the poor; the idleneſs, luxuries, and debaucheries of the firſt, and the miſery, and too frequent intemperance of the laſt, deſtroy a greater proportion of theſe two; the intermediate claſs is below thoſe indulgences which prove fatal to the rich, and above thoſe ſufferings to which the unfortunate poor fall victims—this is therefore the happieſt diviſion of the three: Of the rich and poor, North-America furniſhes a much ſmaller proportion than any other diſtrict of the known world. In Connecticut particularly the diſtribution of wealth and its concomitants is more equal than elſewhere; and therefore, as far as exceſs or want of wealth may prove deſtructive or ſalutary to life, the inhabitants of this ſtate may plead exemption from diſeaſe*."

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* Connecticut is the moſt populous in proportion to its extent, of any of the thirteen ſtates. It is laid out in ſmall farms, from 50 to 3 or 400 acres each, which are held by the farmers in fee ſimple; and are generally cultivated as well as the nature of the ſoil will admit, and the whole ſtate reſembles a well cultivated garden. With that degree of induſtry which contributes to happineſs, it produces the neceſſaries and conveniences of life in great plenty. In 1756 the number of inhabitants in this ſtate was 130,611—in 1774 there were 197,856—The increaſe in 18 years was 67,245. From 1774 to 1782, the increaſe was only 11,294. This comparatively ſmall increaſe was owing to the deſtructive effects of the war, and to the numerous emigrations to Vermont and other ſtates. The inhabitants of all the ſtates of New-England are almoſt all of Engliſh deſcent. There are no Dutch, French or Germans, and very few Scotch or Iriſh among them.

The following Account of the Ages of different Perſons who died in Connecticut, between the years 1771 *and* 1777, *and from* 1777 *to* 1782, *when compared with thoſe of other States and Countries, will ſerve to ſhew the advantages which its Inhabitants enjoy in point of health and longevity over moſt others.*

" FROM January 1ſt, 1771, to January 1ſt, 1777, 239 perſons died at Milford, of which 33, or about one-ſeventh part were upwards of 70 years old; and 84, or about one-third part of the whole, were under 10 years.

" FROM January 1ſt, 1777, to June 3d, 1782, died at Milford, 417 perſons; of which 31, or about one-thirteenth part of the whole number, were 80 years old and upwards."

OTHER calculations of a ſimilar kind, made in different parts of the ſtate from the bills of mortality, confirm the juſtneſs of the above proportion.—*See* the Memoirs of the American Academy of Arts and Sciences for more accurate bills of mortality, communicated by profeſſor Wiggleſworth, &c.

The following Obſervations on the Weather and Diſeaſes at Salem, in Eſſex county, and ſtate of Maſſachuſetts, five leagues N. E. of Boſton, for the year* 1786, *are extracted from a communication by Edward Auguſtus Holyoke, M. D. to the Maſſachuſetts Medical Society.*

JANUARY, 1786.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	29th	46°	44°	At noon.
	loweſt	18th	5°. 5′	12°	

The moſt common diſorders this month, (which was a healthy one) were bad Coughs, Fevers, chiefly Ephemeras, and thoſe of a mild and moderate kind, Odontalgiæ, Rheumatiſms;

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* Salem is a ſea port town, containing about 9000 inhabitants; in a flat ſituation, with a ſandy ſoil, remote from marſhy grounds or ſtagnant water.

tiſms; beſides a few inſtances of Cynanchæ Malignæ, or, more probably, Scarlitina Anginoſa, &c.

FEBRUARY.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	10th	47°	45°	At noon.
	loweſt	1ſt	22° 12′	27°	

No remarkable variation of the Barometer—Wind generally N. W. and S. W.—ſeldom eaſterly—great quantities of ſnow—weather generally moderate.

This month very healthy.

A few patients with Coughs, ſome Hectical caſes; Pleuriſies; a few Aſthmatics, and two inſtances of fatal Ileus.

MARCH.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	26th	78°	64°	At noon.
	loweſt	11th	31°	33°	

Wind from N. W. and frequently high and bluſtering, and weather moſtly very cold; but on the 25th and 26th remarkably warm, and the air ſmoky and hazy.

Diseases this month ſimilar to thoſe of February, but more numerous. The Pertuſſis made its appearance about the middle of this month.

APRIL.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	28th	63°	56°	At noon.
	loweſt	2d	30°	33°	

Barometer remarkably ſtationary.

On the 1ſt and 2d a violent ſnow ſtorm, from N. E.

DIEASES.

Pertussis, epidemical amongſt children; a few adults alſo affected with it. Bad Coughs brought on by the long continuance of damp and raw weather, a number of which terminated in Phthiſis; ſome other Pulmonic affections, and a few Rheumatiſms; and many with Abſceſſes both internal and external.

MAY.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	27th	71°	63°	At noon.
	loweſt	6th	48°	52°	

On the 6th and 7th a ſtorm from N. E. with much rain—Very few pleaſant days, but much cold and wet, with almoſt conſtant eaſterly winds.

DISEASES.

Bad Coughs very frequent, as well as Pneumonic and Rheumatic complaints; Catarrhs; patients ſubject to Epilepſy more frequently affected than uſual.

The generality of weather cold and cloudy, with the wind almoſt conſtantly eaſterly.

*JUNE.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	4th	93°	85°	At noon.
	loweſt	15th	71 °10′	65°	

Barometer very ſtationary.

No conſiderable rains, but ſhowers on ſix ſeveral days. A little thunder on four days. Moderate winds, chiefly between N. W. and S. W.---about a third of the month fine agreeable warm weather---The reſt of the month rather damp, cool, and unpleaſant.

DISEASES.

HECTICAL caſes, and bad Coughs, numerous. Several caſes of Pleuriſy and Rheumatiſm---Diarrhœas numerous, owing perhaps to changing cuſtomary clothing.

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* In the years 1781, 1782, and 1783, the thermometer was higher in June than any other month of the year: But the higheſt that it was obſerved to riſe at any time in either of thoſe laſt mentioned years was 89 during the hotteſt part of the day. *Memoirs of the American Academy of Arts and Sciences.*

J U L Y.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	16th	91° 5′	85°	At noon.
	loweſt	18th	60°	64°	

Winds moſt prevalent from the weſt, though frequently from the eaſt---two or three ſultry dog-days---about one-third of the month the air was damp, and the winds blew from the eaſtward---Two remarkable changes from hot to cold, one on the 12th, the thermometer at 4 o'clock, P. M. at 82, and at 7 the ſame evening at 59°; and on the 27th at noon 89, and at 10 o'clock, P. M. down to 64.

DISEASES

Of the Alimentary Canal, Diarrhœa, Dyſpepſia, and Gaſtrodyniœ very riſe---Some Dyſenteries and Choleras---a few with Pleurodine--Apthæ in children---Diſeaſes of various ſpecies, and very numerous.

AUGUST.

AUGUST.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	6th	88°	84°	At noon.
	loweſt	31ſt	62°	60°	

RAIN on five days, and a few ſlight ſhowers beſides—two days foggy—many eaſterly winds, though more frequent weſterly ones, but none high—much damp weather—on the whole unuſually cool.

DIEASES.

DYSPEPSIA and Diarrhœa moſt common; a few caſes of Pleuriſy, and ſome of ſlow continued Fever, (commonly called the long Fever), the ſame as that deſcribed by Huxham under the title of *Slow Nervous Fever*, and appears to have been occaſioned by exceſſive fatigue, and the application of highly ſtimulant powers to bodies affected with Nervous Diatheſis, i. e. in a defective ſtate of tone.

SEPTEMBER.

SEPTEMBER.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	2d 30th	71° 30′	74°	At noon.
	loweſt	24th	48°	59°	

Prevailing winds from the weſtward, though frequently interrupted by eaſterly breezes, but no briſk gales; much dry agreeable weather.

DISEASES.

The variation of the barometer for ſix months paſt, but ſmall.

Fevers, for the moſt part, of a mild, low kind, very numerous; none of which however, ended fatally; a few Pleuriſies; Dyſenteries frequent; Hemoptyſes, &c.

OCTOBER.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	1ſt	83°	76°	At noon.
	loweſt	30th	40°	43°	

Two or three inches of ſnow fell on the 30

30th. Winds prevailed chiefly from S. W. W. and N. W.

DISEASES.

Fevers, beginning with Pleuritic ſymptoms, degenerated into thoſe of the low Nervous type, and in ſome caſes continued for three, four, or five weeks. Dyſenteries were common, but generally terminated favourably. Pertuſſis diſappeared, after having continued ſeven or eight months.

NOVEMBER.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	7th	59°	55°	At noon.
	loweſt	28th	10°		

No ſtorms or high winds, which is remarkable as there are generally more in this month than in any other—ſome ſnow on four days—Winds from S. W. W. and N. W. above two-third of the month—weather very variable though more than a third fair and dry.

DISEASES

All of an inflammatory ſpecies, but not numerous; a few with Choleræ Dyſentericæ, which is remarkable ſo late in the year.

DECEMBER.

		Day.	abroad.	in houſe.	
Thermometer.	higheſt	31ſt	45°	43°	At noon.
	loweſt	12th	17°	20°	

Two very violent ſtorms at E. N. E. in which an immenſe quantity of ſnow fell, viz. on the 4th and 5th, and on the 9th and 10th. Winds from the weſtward much the greateſt part of the month, and not very high.

DISEASES.

This month was remarkably healthy; few or no febrile diſorders, and not many Phlegmaſiæ.

To an account of the diſeaſes to which we are incident in this place (Salem) at the preſent day, it may not be improper to ſubjoin a few words reſpecting ſuch as ſeldom or never

ver do happen, and of ſuch as were frequent formerly, but ſeldom or never make their appearance here at preſent.

The firſt I ſhall mention is the Rickets. This diſeaſe was formerly (about thirty-five or forty years ago) pretty common here, and more eſpecially among negro children, as I very well remember; but is now become ſo rare that I have not ſeen it more than three or four times, theſe eight or ten years, according to the beſt of my remembrance.

Dr. Gliſſon and others, the firſt writers on Rickets, inform us, that it firſt made its appearance about thirty years before they wrote, i. e. about the year 1620, in the counties of Dorſet and Somerſet, in Great-Britain; which, if true, ſhows it to be of a very modern date; and from a chart of the fatal diſeaſes, &c. in London, collected and publiſhed by Dr. William Black, it appears, that it has been gradually declining in that city theſe ſeventy or eighty years paſt; particularly from 1702 to 1717, (a period of fifteen years) there died of the Rickets 3916;

and that from 1762 to 1777, (another period of the ſame length) there died only 104. All theſe obſervations ſeem to indicate an utter extinction of this ſcourge of infants.

Another is the the Colica Pictonum, or Dry Belly-Ach, as it was commonly called. This painful and diſtreſſing complaint, till about twenty-four or twenty-ſix years ago, was ſo frequent, that it was no uncommon thing to have ſix or eight patients, or more ill of it in a winter, the ſeaſon in which it moſtly prevailed, though it was not confined to cold weather: But now, for theſe twelve or fifteen years back, I imagine there have not been five perſons ill of it in this town, if we except a very few who dealt in lead, and who it was evident derived their diſeaſe from that ſource, ſuch as painters, &c.

This ſpecies of Colic was formerly attributed to hard drinking; and it is certain that perſons addicted to ſpirituous liquors were generally the ſubjects of it; but its rare appearance now cannot be owing to an increaſe of temperance, for I fear it is a melancholy truth, that intemperance is as prevalent at this period as it has been theſe forty years.

Query? Can this difference be accounted for from the very general diſuſe of pewter? Formerly the moſt uſual drinking veſſel in the houſes of the poorer claſſes of people, was a pewter quart-pot, and thoſe made uſe of in eating, ſuch as plates, porringers, &c. were of the ſame material; which, when not frequently ſcowered are apt to be converted into ceruſs. But the uſe of pewter is now in general diſuſe, and by the revolution of faſhion, its place is ſupplied by more modiſh ſtone ware, called *Queen's-Ware.*

Both the laſt mentioned diſeaſes, I am informed, are more rare in ſome of the neighbouring towns than they are in this: as to others I have no information; nor how the caſe is in the more diſtant parts of the country.

Perhaps it would be intereſting to enquire, what diſeaſes have become extinct, or very rare among us, and what new ones have ſucceeded in their room.

We ſee no Intermitting Fevers generated here, though 35 or 40 years ago they ſometimes occurred.

Typhus, both mitior and gravior of Dr. Cullen, were frequent with us from 25 to 35 years ago, eſpecially in Autumn, and proved fatal to many in the vigour and prime of life; it is now comparatively very rare.

Scurvy is a diſeaſe we very ſeldom meet with: Sailors ſometimes return from ſea with it, and for the moſt part recover very ſoon; but I have never met with more than a very few inſtances of it generated here at home, in the courſe of my practice.

Puerperal Fever very ſeldom occurs here.

I shall conclude with obſerving, what I ſuppoſe muſt have been obſerved by all the elder Practitioners among us, that acute diſeaſes are much leſs frequent among us in this town, as well as much leſs fatal than formerly; and that Chronic diſeaſes, particularly Phthiſis Pulmonalis, have taken their place; and although our ſpecies deſcend to the grave by paths a little different from the old ones, yet they arrive at it no faſter than formerly, as our bills of mortality, in proportion to our numbers, are by no means increaſed.

BILL *of* MORTALITY, *for the Town of* SALEM, *for the year* 1786.

DEATHS.

January,	-	7	July,	-	12
February,	-	12	Auguſt,	-	12
March,	-	13	September,		12
April,	-	13	October,	-	10
May,	-	17	November,	-	6
June,	-	12	December,		13
			Total,		139

DISEASES.

DISEASES.

Inflammatory Fever,	2	Triſmus Infantum,	1
Slow Nervous Fever,	4	Convulſion	3
Mixed Fever,	5	Palſy,	2
Hydrocephalic Fever,	1	Inſanity,	1
Anomalous Fever,	5	Aſthma,	1
Inflammatory Quinſy,	1	Hooping Cough,	13
Putrid Quinſy,	3	Dropſy, viz.	
Inflammation in the Thorax,	4	Anaſarca,	2
Angina Pectoris,	1	Aſcites,	2
Inflammation in the Abdomen,		Pulmonary Conſumption,	20
	1	Hectical Decay,	7
Empiema,	1	Atrophy,	6
Cholera Morbus,	2	Cancer,	1
Cholera Dyſenterica,	9	Worms,	2
Dyſenteria,	3	Apthæ,	2
Diarrhœa,	2	Still-Born,	6
Lienteria,	2	Caſualties, viz.	
Colic, viz.		Murdered,	1
Ileus,	2	Executed,	1
Spaſmodic,	1	Drowned,	1
Calculi,	1	Diſeaſes unknown,	17
		Total,	139

Of which ten were infants, within the month.

From other bills of mortality publiſhed in the Memoirs of the American Academy of Arts and Sciences, it appears that the number of births exceeds that of the deaths in the proportion of two to one.

METE-

METEOROLOGICAL OBSERVATIONS,

Made at BOSTON, A. D. 1790.

For JANUARY.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	39°	38° 5′
15th.	25°	26°
28th.	38°	32°

On the 6th the mercury was down at 5°. It had been as high as 52 at 1 P. M. only two days before, viz. on the 4th.

For FEBRUARY.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	27°	36°
15th.	30°	44°
30th.	18° 5′	36°

On the 10th the thermometer was down to 7 decimals above 0—at 7 A. M. which was the loweſt, and on the 25th it was as high as 39 at the ſame time of day.

For MARCH.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	19°	31° 5′
15th.	32°	36° 5′
30th.	32°	42° 5′

The loweſt this month was on the 9th, when the mercury was only two degrees above 0. The higheſt was 50, on the 6th.

For APRIL.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	32° 5′	50°
15th.	41°	43°
30th.	42° 5′	58°

Higheſt degree of heat this month was 70 at 1 o'clock, P. M. on the 4th day. The loweſt was 27 on the 8th.

For MAY.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	49° 0	67°
15th.	52°	59°
30th.	52°	64°

The higheſt degree of heat this month, at 1 o'clock P. M. was 80 on the 10th. The loweſt was 41 on the 6th.

For JUNE.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	56°	65° 5′
15th.	68°	78°
30th.	63°	71°

Higheſt was 88 on the 19th, 1 P. M. Loweſt 55 on the 4th, 8 A. M.

For JULY.

THERMOMETER,

Days.	7 A. M.	1 P. M.
1ſt.	69°	75°
15th.	69°	83°
30th.	67° 5′	80°

Higheſt degree of heat 92, at 1 o'clock P. M. on the 7th. Loweſt at 8 A. M. 58 on the 20th.

For AUGUST.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	63°	70°
15th.	72°	76°
30th.	64°	84°

Higheſt degree 92 on the 16th, at 1 P. M. Lowest 53, at 8 A. M. on the 24th.

For SEPTEMBER.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	58°	70°
15th.	55°	68°
30th.	53°	56°

Higheſt 85 at 1 P. M. on the 2d. Loweſt 39, at 8 A. M. on 24th.

For OCTOBER.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	46°	62°
15th.	50°	60°
30th.	49° 5′	66°

Higheſt degree of heat 74 on the 6th 1 P. M. Lowest 26, on 27th 8 A. M.

For NOVEMBER.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	35°	60°
15th.	45°	58°
30th.	24° 5′	33°

Higheſt degree of heat on the 1ſt 60. Lowest on the 26th, 15. Winds amazingly variable.

For DECEMBER.

THERMOMETER.

Days.	7 A. M.	1 P. M.
1ſt.	17°	35°
15th.	15°	22° 5′
30th.	7° 5′	13°

At 9 at night below 0.

Higheſt degree of heat was 40 at 1 P. M. on the 11th. Loweſt 2 decimals above 0, on 8th, 9th, and 18th.

REMARKS.

IN New-Hampſhire, which is ſituated between the 42 and 45° of north latitude, the land near the ſea is generally low; but farther in the country it riſes into hills, and in ſome parts, is very mountainous. The higheſt part of a ridge of mountains in it, which extend N. E. and S. W. are called the *White Mountains*. Theſe mountains are eſtimated to be 9000 feet above the level of the ſea, and are covered with ſnow and ice nine or ten months in the year, during which time they exhibit that white appearance, from whence they have derived their name. From their ſummit is exhibited an amazing view, extending 60 or 70 miles in every direction—And though more than 70 miles within land they may be diſcerned many leagues off at ſea, from whence they appear like an exceeding bright cloud in the horizon. Three of the largeſt rivers in New-England receive a great part of their waters from theſe mountains.

The ground is generally covered with ſnow the greateſt part of the winter: Rain falls but ſeldom during that ſeaſon.

This ſtate emboſoming a number of very high mountains, and lying in the neighbourhood of others, whoſe towering ſummits are covered with ſnow and ice three-quarters of the year, is intenſely cold in the Winter ſeaſon.

The heat of its Summers, though of ſhort duration, is alſo intenſe, eſpecially about noon and a little while after.

Connecticut river paſſes through the weſtern parts of this ſtate.

Portsmouth, its metropolis, ſtands on

the S. E. of Piſcataqua river, about 2 miles from the ſea, and contains about 600 houſes, and 4400 inhabitants. This is the only port in the ſtate.

THERE are many ſmall ſtreams of water in the ſtate, iſſuing from the ponds and ſwamps in the valleys. There are alſo ſeveral ſmall lakes, and one near the center of it about 20 miles in length, and from 3 to 8 in breadth.

"MASSACHUSETTS is watered and fertilized by the following rivers, viz. Merrimak, Charles, which riſes from five or ſix ſources, Motherbrook, Taunton, whoſe ſource is from the Blue Mountains which lye back of Milton and Braintree, and forms the principal drain of the country lying eaſt of theſe mountains; Concord, formed of 3 branches, one iſſuing from Framingham pond, the other two from Marlborough mountains; Myſtic and Medford empty into Boſton harbour; Ipſwich empties into the Atlantic at the town of Ipſwich; Weſtfield empties into Connecticut river at Springfield; the

Chicabe empties into the ſame. Deerfield river riſes in Vermont, and paſſes through a large tract of moſt excellent meadow; this empties into Connecticut river.

" BOSTON, the capital of Maſſachuſetts, contains about 1800 houſes, and, according to a late computation, 14,640 inhabitants; of theſe 6578 were males, and 8070 females."

" THERE are a great many pleaſant towns both maritime and inland, in Connecticut. The capitals of the ſtate are, the cities of Hartford and New-Haven. The former is ſituated at the head of navigation on the weſt ſide of the majeſtic and ſpacious river Connecticut, about 15 miles above its entrance into the Sound: The number of houſes do not exceed 300. New-Haven is ſituated at the head of a bay, on a plain circumſcribed on three ſides by high hills—and is bounded eaſt and weſt by two ſmall rivers," contains only 500 dwelling houſes made of timber. The number of males in the whole ſtate exceeded the number of females by 1570; but in New-Haven there were found in 1787, to be 49 females more than males.

The following is an Account of the DEATHS *which happened at Salem, (ſituate* 15 *miles north eaſt of Boſton, and which contains about* 6000 *Inhabitants), from January* 1*ſt*, 1790, *to Januaay* 1*ſt*, 1791.

January 17th,	under	2	years	62
February 10th,	between	2	and 5	24
March 7th,		5	10	9
April 8th,		10	20	3
May 22d,		20	30	25
June 20th,		30	40	12
July 19th,		40	50	14
Auguſt 30th,		50	60	8
September 24th,		60	70	10
October 13th,		70	80	16
November 11th,		80	90	5
December 15th,		90	100	2
			103	1
Dead born,		-	-	5
				196

OF which 106 were males, 90 females— 11 negroes and 3 Indians are included.

About 1 in 70 dies annually in New-Haven.

The Small-Pox, by the vigilant execution of the laws ſubſiſting in the ſeveral New-England ſtates, has never prevailed generally among the inhabitants, except in Boſton, where it was epidemical, A. D. 1649, 1666, 1678, 1689, 1702, 1721, 1730, 1752, and in 1764, and where the ſucceſs attending inoculation, though at that time in its infant and imperfect ſtate, became inconteſtibly evident.

In New-York, Pennſylvania, &c. the like precautions have not been taken, and the Small-Pox has been often epidemic there, eſpecially in their capital towns—and inoculation has been practiſed with almoſt incredible ſucceſs, whenever the cold and abſtemious regimen has been obſerved, notwithſtanding the too liberal and injudicious uſe of mercury. Since the practice of giving mercury has been growing into diſrepute, and another more ſimple, conſiſting principally of mild laxatives, vegetable diet, and expoſure to a colder temperature than uſual during the eruptive Fever, there is ſcarce an inſtance of one in a thouſand dying of this diſeaſe.

* A. D. 1721, the number of individuals in Boſton was 10,567, at which time the diſeaſe was very common. The number of thoſe who died of it was 844, which was, according to Mr. Gales calculation in his Hiſtorical Memoirs, about one in ſeven. At this time only 286 were inoculated in and about Boſton, whereof 6 died, i. e. 1 in 48. This was the firſt introduction of inoculation into America. It was introduced into London about the ſame time by Lady W. Montague in the reign of George the 1 ſt.

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* Though the reverend C. Mather, one of the principal miniſters of Boſton, recommended it to the phyſicians, to make the experiment of inoculation, when the mortality in the natural way was very diſtreſſing, they all declined it except Dr. Boylſton, who began with his own children and ſervants: For this innovation he was conſidered as an impious perſon by the generality of his fellow-citizens, and ſuffered much in his intereſt on that account. Mr. Mather had read a favourable account of the operation in the Philoſophical Tranſactions, communicated by Timotheus from Conſtantinople.

A. D. 1730—Of 4000, which had the diſeaſe in the natural way, about 500 died, i. e. in the proportion of 125 to every thouſand. Of nearly 400 inoculated, 12 died, or about 1 of 33.

A. D. 1752, there was an exact account taken, by order of the magiſtrates of the town of Boſton, and rendered upon oath, (in order to remove the prejudices and objections made againſt inoculation) of all who had the ſmall pox, either in the natural way, or by inoculation, and of the preciſe number of thoſe who died of it in either way: By this account it appears that the number of thoſe who had the diſeaſe in the natural way, including blacks, amounted to 5544; of which number there died, including blacks, 574—The whole number inoculated, including blacks, was 2113, of which 30 died. At this time all preſent had the Small-Pox, except about 174; the total of reſidenters at that time (including 1544 negroes) was 9710. Thoſe who fled to eſcape the Small-Pox were eſtimated at 1800.

In 1764, of 3000 inoculated patients, only ly 5 died, and theſe were children under five years of age.

THREE hoſpitals were afterwards erected in different parts of Maſſachuſetts, for the purpoſe of receiving patients deſirous of being inoculated, and regulated in ſuch manner, as to prevent the infection from ſpreading, or being communicated to any of the reſt of the inhabitants, as was expected; but through ſome treſpaſs of the rules, and the refractory diſpoſition of ſome of the patients, the whole utility of the inſtitution was fruſtrated: Whereupon the law permitting inoculation was repealed, and another paſſed prohibiting it under ſevere penalties. Since that time, any perſon who has the misfortune to enter that ſtate with the diſeaſe, or any of the infection adhering to his apparel or goods, and any one is thereby infected with the diſeaſe, he is liable to pay to the party ſo infected treble damages and coſts of ſuit.

THUS the practice of inoculation for the Small-Pox ſtands wholly interdicted within the New-England ſtates, and the inhabitants are deprived, through a miſtaken policy, of rendering one of the moſt formidable and loathſome diſeaſes mild and harmleſs.

OF THE CLIMATE AND DISEASES OF NEW-YORK.

THE diſeaſes which occur in the ſeveral parts of this ſtate, differ ſo little in number, nature, and cauſes, from thoſe of the New-England ſtates, that I think it unneceſſary to enumerate any except thoſe peculiar to the faſhionable and luxurious.

" THIS ſtate extends from the 40 to the 45th degree north latitude, is bounded ſouth eaſtwardly by the Atlantic ocean; eaſt by Connecticut, Maſſachuſetts, and Vermont; north by the 45th degree of latitude, which divides it from Canada; ſouthweſt and ſouth by Pennſylvania and New-Jerſey. It is interſected in different parts by ridges of mountains, running in a north eaſt and ſouth weſt direction." Theſe mountains occaſion the winds in winter to be very cold and piercing, (for the air on mountains is always cold in proportion to their height.)

The difference between the conſtitutions of the inhabitants of the city and country parts of New-York is almoſt incredible. Inflammatory diſeaſes are much leſs frequent in the city than in the country, and in general are much leſs rapid and violent in their progreſs than formerly: Nor do they admit of the ſame antiphlogiſtic method of cure which is found neceſſary with people whoſe occupations require exerciſe in the open air.

An active farmer, with an acute rheumatiſm, often requires the loſs of 60 or 70 ounces of blood in the courſe of the diſeaſe; but the citizen, confined to a ſedentary occupation, can ſeldom bear half that quantity.

The citizens are affected with a numerous train of Nervous complaints, of which the inhabitants of the country have no idea.

Theſe appear to influence all their other complaints. Great numbers of them are enfeebled and enervated; and it is not uncommon to obſerve high degrees of irritability under the external appearance of firmneſs and vigor.

The Hypochondria, Palſies, Cachexies, Dropſies, and all thoſe diſeaſes which ariſe from laxity and debility are at this period endemic not only in New-York, but alſo in Boſton, Philadelphia, and Baltimore; and the Hyſterics, which uſed to be peculiar to females, as the name indicates, now attacks many of both ſexes indiſcriminately. It is evident that ſo great a revolution in the conſtitutions of people could not be effected without the concurrence of many cauſes. Among the principal of theſe may be ranked, ſedentary occupations, the intemperate uſe of ſpirituous liquors, and the daily uſe of ſtrong tea.

That a ſtrong infuſion of hyſon tea is an exceedingly powerful ſtimulant to the Nervous ſyſtem, and intoxicates like ſpiritous liquors, muſt be manifeſt to every one who has ever obſerved a number of ladies aſſembled at a *tea table*. It is on its narcotic or intoxicating quality, that its pernicious effects depend.

But the greateſt evils which contract the duration, and embitter the enjoyments of life, are derived from the ſources of ſloth, intemperance and irregular deſires.

The narrowneſs, irregularity, and confined ſituation of many of the ſtreets and buildings in the city of New-York, render it much more liable to diſeaſes than Boſton, and notwithſtanding its ſuperior ſituation, it is more ſubject to ſickneſs, during the Summer and Autumnal ſeaſons, than Philadelphia. Whether its water, which is brakiſh and unpalatable, contributes to this circumſtance or not, has never been ſatisfactorily aſcertained.

The narrowneſs and irregular form of its ſtreets, the height of the houſes, and the crowded manner in which they are built, occaſion it to be inſufferably hot in ſummer.

THE number of inhabitants in the whole ſtate, in January, 1791, was computed to be 324,127, of which 18,000 were negroes. The number in the city was 27,000, beſides ſtrangers and ſailors.

A COMPARATIVE view of the ſtate of this city at preſent, with that which it exhibited 30 years ago, is flattering to the preſent age, particularly in the improvements in literature, architecture, elegance and politeneſs.

TABLE *of* Meteorological Obſervations, for 1790.

For JANUARY.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	37°	42°
15th.	35°	36°
30th.	28°	34°

For FEBRUARY.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.		
15th.		
28th.		

For MAY.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	45°	60°
15th.	55°	66°
30th.	57°	63°

Higheſt was 74, which was on the 24th.

Loweſt was 45.

For JUNE.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	65°	68°
15th.	69°	75°
30th.	68°	73°

Higheſt was 80 on the 17th.

Loweſt 57 on the 10th.

For JULY

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	64°	73°
15th.	70°	76°
30th.	70°	76°

Higheſt 80.

Loweſt 64.

For AUGUST.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	68°	74°
15th.	78°	82°
30th.	66°	70°

Higheſt on the 14th, 85.

Loweſt on the 20th, 64.

Prevailing winds, S. W.

For

For SEPTEMBER.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	66°	71°
15th.	62°	67°
30th.	60°	64°

For OCTOBER.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	57°	60°
15th.	57°	58°
30th.	54°	56°

Higheſt 71 on the 4th.
Loweſt 42 on the 11th.

For NOVEMBER.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	50°	56°
15th.	47°	55°
30th.	32°	35°

For DECEMBER.

THERMOMETER.

Days.	8 A. M.	2 P. M.
1ſt.	36°	40°
15th.	29°	40°
30th.	35°	37°

Higheſt 47.
Loweſt 21.

Of

Of the CLIMATE *of* NEW-YORK.

The following is an Abſtract of Dr. Mitchell's Remarks reſpecting the Climate of New-York.

"IT has been long known that the temperatures of countries are to be eſtimated, not merely by the diſtance from the equator, but alſo by their remoteneſs from the margin and level of the ocean.

"THE following facts will, perhaps, enable you to form ſome idea of the difference between this climate and ſome others under the ſame parallel.

"IN July, 1788, the mercury in Farenheit's thermometer roſe in my chamber in the city of New-York, as high as the 103d degree above 0. And in Februry, 1789 at Albany, it ſunk to the 24th degree below 0, by the natural changes of the weather.

"LIGHTNING, during Summer and Autumn, is very frequent, particularly near the iſlands and ſea coaſts: And (for what reaſon I do not well underſtand) the thunder ſhowers almoſt invariably come from the north weſt.

"It is remarkable that the flaſh will kill vegetables no leſs ſuddenly than animals, by depriving them of their excitability, or ſuſceptibility of being excited by the ſtimuli neceſſary to life, rather than by deſtroying their organization; for animated matter becomes defunct in three ways: 1ſt. By a deſtruction of organization, as by mortal wounds. 2d. When the organization is intire, but its capacity to receive the impreſſions of ſtimuli is taken away, as by long expoſure to fixed, or phlogiſticated air, or by exceſſive electrical ſhocks; and 3d. Where the organ and capacity are complete, but where, however, no ſtimuli are applied, as in ſeeds and in eggs before impregnation, and in animals, not irrecoverably drowned, before reſuſcitation.

"On Long-Iſland, Indian corn is planted after the beginning or about the middle of May; and the new crop is fit for grinding in 150 days; but the ſame kind of grain brought from Nova-Scotia, grows here to maturity in 96 days, while that brought from Carolina, does not ripen in leſs than 190. Buck-wheat grows from the ſeed to perfection in 84 days.

"Frost commonly occurs in every month of the year, excepting June, July, and Auguſt; and has now and then even happened in June and Auguſt. It comes frequently about the firſt of September; and I remember on the 4th of May, 1774, a conſiderable quantity of ſnow fell.

"In the Spring the bloſſoms of peach, apple, and other fruit-trees, and the ſprouting foliage of plants, are often hurt by it; but from cauſes which I do not fully comprehend, it prevails moſt in low lands, valleys and plains*.

"Drought of ſix or eight weeks continuance ſometimes parch us, and again rain falls to the depth of five or ſix inches on a level, in four hours. Winds are very variable; the ſea breezes, which blow from the ſouth, are our warmeſt in Winter, and from the north weſt, our cooleſt in Summer. In the Winter the north weſt winds are the moſt boiſterous and piercing: though the north eaſt are generally attended with ſtorms of ſnow and ſleet.

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* See this explained under the account of the Climate of Virginia.

" The abundance of melting ſnow and ice, which frequently overſpreads the country, far and near, ſubjects thoſe whoſe feet are expoſed to the ſloppy colliquation, to Colds, Catarrhs, Coughs, and their conſequences."

Mr. Kalm remarks, that at " Albany the wind blows commonly from the ſouth in Summer, and brings a great drought along with it. Sometimes it rains a little, after which the wind veers to N. W. blowing for ſeveral days from that point, and then returning to the ſouth." *See* Kalm's Travels, Vol. II. page 243.

The ſame gentleman informs us, that the cold is generally very ſevere on the river Hudſon; at Albany, in the middle of winter, the ice is ſometimes three or four feet thick. " On the 3d of April, 1749, ſome of the inhabitants croſſed the river with ſix pair of horſes. The ice commonly diſſolves here about the latter end of March or beginning of April. The water at this time, ſome years, riſes three fathom higher than it commonly is in ſummer. The inhabitants make no uſe of ſtoves, and their chimneys are ſo wide as to admit a cart and horſes to be driven through them.

"The water of the wells (continues Mr. Kalm) in this town was very cool, when I was there in June 1749, but had a kind of acid taſte, which was not very agreeable. It alſo contained a number of little inſects which were probably *Monoculi:* Theſe inſects were from one and an half geometrical line to four in length."

Mr. Kalm thinks this water not wholeſome, but the inhabitants who drink it every day, do not feel the leaſt inconvenience from it. Albany is about 146 miles from New-York.

"The Rheumatiſm and Pleuriſy are the moſt common diſeaſes in this part of America.

rica. Intermittents and Dyſenteries are ſeldom heard of. The Phlogiſtic Diatheſis is ſo prevalent, that the phyſicians uſe venæſection for almoſt every complaint, and at every ſeaſon of the year.

"The exceſſive heat, however, which prevails here from the middle of July to the latter end of Auguſt, ſometimes gives riſe to fevers attended with very anomalous ſymptoms, which often baffle the ſagacity of the moſt experienced practitioners."

*The following Information reſpecting the Diſeaſes, depending on Climate and ſituation was communicated to the Author by Dr. John Jones of Philadelphia, formerly Profeſſor of Surgery, &c. at King's College, New-York—*at preſent Vice-Preſident of the College of Phyſicians of Philadelphia.*

"In the Winter and Spring the following diſeaſes are more or leſs epidemic every year in the city of New-York, viz.

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* Dr. Jones died ſince the above was communicated.

" Inflammatory Quinſy—The Suffocating Cartarrh of children--The common Catarrh--Peripneumony---Pleuriſy---Hepatitis, and Rheumatiſm.

" The Nephritis, Cyſtitis and Hyſteritis, occur at all ſeaſons.

" The epidemics of Summer, are only Cholera and Diarrhœa.

" In Autumn there ſeldom or ever occurs any epidemic which can be aſcribed to the influence of the climate or ſituation, except Diarrhœas, accompanied with Griping; but theſe are rather ſporadic than epidemic, except when a rainy Autumn ſucceeds a hot and dry Summer." Theſe Diarrhœas, however, according to Dr. Jones's obſervations, frequently terminate in very dangerous Dyſenteries.

He has alſo ſometimes obſerved Intermitting and Remitting Fevers to be very general after the autumnal equinox, when the ſeaſon has been rainy; though there are no ſources of Marſh Miaſmata; neither marſhy grounds, nor ponds of ſtanding water within its vicinity. About a mile above the city there is one pond, from whence the city is ſupplied with freſh water; but it is always pure.

“ THOUGH the diſeaſes which are mentioned as occurring in Winter and Spring, are moſt common at thoſe ſeaſons, they alſo occur in ſome conſtitutions every month of the year.

“ THOSE diſeaſes produced by luxury, debauchery, and idleneſs, are the ſame every where.”

OF THE DISEASES WHICH OCCUR IN NEW-JERSEY.

THE diſeaſes which occur in the eaſtern part of this ſtate (which extends to the 41ſt degree of north latitude), where the land is elevated and dry, are the ſame with thoſe of Pennſylvania, in ſimilar circumſtances; but in the weſt diviſion of the ſtate, as well as in the counties on the ſea-coaſt, and the marſhy bottoms along the numerous creeks with which it is ſupplied, the inhabitants are much more ſubject to Intermittents and Bilious complaints.

THE parts which are dry, ſandy, and produce nothing but pine and ſpruce, are famous for prolific women, from whence the ladies of Philadelphia, who are not able to endure the fatigue and trouble of nurſing their offſpring, are furniſhed with wet nurſes.

THE flat and marſhy parts of this ſtate, which are very numerous, are infeſted with myriads of muſquetoes, which give intolerable annoyance to man and beaſt.—Their bites often occaſion an Eryſipelas, both painful and dangerous. Theſe inſects, however, are never obſerved to be troubleſome when the mercury is below the 60th degree. I do not know the degree of cold which renders bugs inactive, but have been kept awake by them at Salem, as late as the 10th of November.

PERTH Amboy, the moſt beautifully ſituated town in this ſtate, affords a pictureſque and romantic view, and is one of the moſt healthy places in the ſtate.

" WE may generally determine the relative healthineſs of any ſituation and climate, from a knowledge of the prevailing ſtate of the weather. Cold and moiſture occaſion inflammatory complaints, in all countries and climates, if intenſe, and eſpecially if preceded by hot weather. While heat and moiſture combined, eſpecially in ſituations not favourable for ventilation, commonly produce Intermittent or Bilious complaints."

It is from the ſituation and climate of countries that we are to compute the probabilities of enjoying health and prolonging life. In all the low marſhy ſituations of this ſtate, I know from perſonal obſervation, that the inhabitants are generally ſickly, many of which are Leucophlegmatic and Dropſical-- The women frequently Chloriotic, are generally pale, ſqualid, and have carious teeth: But in the high, dry, and mountainous parts, they are healthy and long-lived.

" The moſt unwholeſome ſituations, and ſoils the moſt unproductive, may be rendered ſalutary by induſtry and art.

" The dykes and drains of Holland, which carry off immenſe quantities of water into the ocean, prevent or deſtroy one of the principal ſources of Fevers, the generation of Marſh Miaſmata."

"Dr. De Monchy, an eminent phyſician at Rotterdam, obſerves, that vapours and exhalations, driven by a land wind, ſeawards, are found ſalubrious or morbific, according to the quality of the ſoil, whether ſandy, gravelly, loamy, or marſhy; yet the healthy ſtate of ſome Engliſh men of war, under the command of commodore Mitchell, which lay at anchor in the channel, between South Beveland and the iſland of Walcheren, parts of the Province of Zealand, in both of which places the Fever raged alike among the natives and the Engliſh ſoldiers cantoned there, is a proof that the moiſt and putrid airs of the waters, mud and marſhes, was diſſipated or corrected before it reached them; and that a ſituation open on all ſides to the wind, is one of the beſt preſervatives againſt the maladies of a neighbouring, low, and marſhy country." De Monchy's Eſſay on the Cauſes and Cure of Diſeaſes, in Voyages to the Weſt-Indies, page 12.

The Dyſentery prevailed in Salem, and

the adjacent country, which borders upon the Delaware, and is very low and marſhy, in September, 1788; but from its readily yielding to the cortex, in ſubſtance, combined with very ſmall doſes of ſpecies *e ſcordio cum opio*, it appears to have been intirely ſymptomatic, and not a primary diſeaſe; for, wherever it is a primary diſeaſe, and the griping and teneſmus are the leading ſymptoms, the diſeaſe can not be cured without repeated purging in the day time, and the exhibition of opium at night. Under ſuch circumſtances, the frequent exhibition of ſtimulating remedies, aſtringents, cordials, and opiates are generally injurious, and frequently fatal.

Extract of a Letter from Dr. P. Masheau, *reſiding at Elizabeth-Town, (communicated in* 1791.)

"NOT a doubt remains with me, that the Dyſentery is not an inflammatory affection of the Bowels, as Akenſide and others have ſuppoſed, but a contagious Fever,

ver, accompanied with frequent ſtools, ſevere pain and griping, followed by teneſmus.

"THE places where this malady is moſt frequently obſerved are moraſſes; and the bowels are particularly diſpoſed to be affected by it, where people make uſe of fermentative liquors too freely: For inſtance, near this place there is a little village called Springfield, where the inhabitants (who drink large quanties of Spruce beer) are very ſubject to to this diſeaſe, after the middle of Auguſt; which, I am perſuaded, in conjunction with the relaxing effects of their local ſituation, is the principal cauſe of their being ſo ſubject to it.

"I HAVE never ſeen any harm done by the Purpurea Digitalis in any ſpecies of Dropſy; on the contrary, I have exhibited it lately, in form of *extract*, with very great ſucceſs.

"I TRIED its virtues on a patient in a very debilitated condition after the operation of the paracenteſis. The bark of Peru was given along with it, which, together with the exerciſe of riding on horſeback, prevented any farther accumulation of water, and effected a cure. But unleſs the Digitalis is aſſiſted by exerciſe and tonics, &c. it is ſeldom of much avail.

"I HAVE never ſeen the Hydrocephalus, you mention, cured ſubſequent to ſymptoms of Strabiſmus occurring, but have three times ſeen it cured prior to the occurrence of this ſymptom, by the Ung. Merc. rubbed on the ſkin covering the Carotids, in large quantities. Worms are, no doubt, a frequent cauſe of Fever; but, at the ſame time, are of advantage by the irritation they produce on the abſorbent ſyſtem. I have never ſeen the Tetanus cured by Dr. Ruſh's method; but cured two patients lately with opium and mercurial ointment."

"THE Typhus is never generated in this town to my knowledge, nor do I recollect to have met with a caſe of Fever that was contagious ſince my reſidence here.

"LOCAL affections are the exciting cauſes of the Inflammatory Fever, as appears from the ceaſing of the fever, ſo ſoon as either reſolution or ſuppuration has taken place.

OF THE SITUATION, CLIMATE, AND DISEASES OF PENNSYLVANIA.

THIS ſtate is ſituate between 39° 43′ and 42° north latitude; peninſulated by ſix conſiderable rivers, whoſe numerous branches ſupply it with inexhauſtible ſtreams of the pureſt water.

THE ground riſes almoſt imperceptibly as we proceed weſtward, for more than 200 miles; after which it becomes very mountainous and rocky, and ſo continues, till we paſs the great range of the Alleghany, from whence to the gently flowing Ohio, the ground is very much broken and uneven; being a repetition of ridge after ridge, but no mountains.

THERE are very few tracts of ſwamp or marſhy ground in this ſtate, except along the Delaware and Suſquehanna. The greateſt part of the ſtate is divided into ſmall plantations, which, in general, are in a tolerable, but by no means in a perfect, ſtate of cultivation.

PHILADELPHIA, at preſent the metropolis of the United States, when the laſt cenſus was taken, contained 42,400 inhabitants, including all ages, ſexes, and deſcriptions; and 6651 dwelling-houſes, excluſive of ſtores and work-ſhops, &c.*

THE ſituation of this city, between the rivers Delaware and Schuylkill (whoſe waters are preſerved freſh and pure by the motion of the tides), is elevated and delightful.

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* Vide Philadelphia Directory, by Clement Biddle, Eſq.

* THE ſtreets are ſo arranged as to favour ventilation, and to admit a free circulation of air through every part†. They are alſo preſerved dry and clean; the dirty water and filth being conveyed by aquæducts under ground, or by common ſewers, into the river.

THE neck of land which lies below the city between the two rivers, though it is low and flat, is preſerved from being overflowed by the tide-waters, by banks; and the rain water which falls upon it is prevented from ſtagnating and becoming putrid or mephitic by numerous drains. This tract of ground is alſo converted into immenſely productive meadows, by the art of cultivation.

An

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* A few nuiſances are ſtill ſuffered to remain in it, ſuch as ſlaughter-houſes, tan-yards, and grave-yards.

† The narrowneſs of the ſtreets, however, occaſion a great increaſe of heat in Summer, in conſequence of the reflection of the ſun from the ſtone pavements, walls, &c. and it is too remote from the ocean to be refreſhed by ſea-breezes.

An ACCOUNT *of the Quality of the* WATER *at* PHILADELPHIA.

THE greateſt part of the pump-water of Philadelphia, which is the only kind that is drank or made uſe of for tea-water, or culinary purpoſes by the inhabitants, is impregnated with ſelenite, or a combination of mineral acid with calcareous earth.

WHEN this water boils, a whitiſh powder is ſeparated from it, which forms a cruſt on all the veſſels in which it is frequently boiled.

THIS water is called hard, becauſe it does not mix uniformly with ſoap, but curdles or runs into flakes.

A SMALL quantity of the ſal. tartari, or clean dry pot-aſh, added to this water precipitates the ſelenite contained in it. Ten or fifteen grains are commonly ſufficient to precipitate what is contained in a pint. The exact proportion may always be found by adding a few grains from time to time till it ceaſes to occaſion white clouds.

THIS water is very diſagreeable to the palates of moſt people who reſide at a diſtance from the city, and is ſometimes offenſive to their ſtomachs and bowels. But cuſtom has rendered it both agreeable and wholeſome to the inhabitants; ſo that they have not a wiſh for any other.

IT is a common opinion that water impregnated with calcareous earth, or any ſtony matter, ſubjects thoſe who make conſtant uſe of it to the Stone or Gravel. But whatever other miſchief theſe waters may have to anſwer for, they are innocent of this. For very few, comparatively, of the inhabitants of this city are troubled with that diſeaſe. Beſides, there are numerous circumſtances recorded which prove, that calculous concretions in the kidneys and bladder are all of an animal origin, intirely different from every ſpecies of foſſil ſtone in every thing except the name.

THERE are ſeveral medicinal ſprings in Pennſylvania impregnated with iron, but none with aerial acid, or fixed air, as yet known.

THOSE moſt noted are, one called Harrowgate, four miles from Philadelphia—one at Briſtol, on the river Delaware, twenty miles above the city—one in Cheſter county, called the Yellow Spring, about thirty-two miles from the city.

BRISTOL and the Yellow Spring are much neglected for want of ſuitable accommodations; but Harrowgate, where the entertainment and accommodations are tolerable, is much frequented, though it is by no means ſo ſtrong a Chalybeate as either of the others.

THAT the yellow Spring, in Cheſter county, is ſtrongly impregnated with iron, is rendered certain by the following circumſtances: The conduits, or canals, through which the water paſſes, are lined with a yellow ſcum like ochre, as well as the baſons and reſervoirs into which it is received. This yellow matter, collected, waſhed, dried, and thoroughly roaſted over a ſtrong fire, is capable of being attracted by the magnet; and, when ſublimed with ſal ammoniac into flowers, and afterwards diſſolved in ſpirits of wine, affords a bright and ſtyptic tincture of iron. Other concurring remarks of their chalybeate nature, are likewiſe afforded by the purple colour they make when mixed with a ſtrong infuſion of green tea, and of a blacker colour with powder of galls, and the iron mould they occaſion upon linen—The ſame dried ſcum, being digeſted in volatile alkaline ſpirits, will occaſion a blue colour when mixed with common water. Theſe waters alſo impart an aſtringent or ſtyptic taſte to the tongue—theſe are all certain characteriſtics of a fine irony ruſt, or the real and material exiſtence of iron in theſe waters.

From the ſenſible quality of theſe waters they appear to be perfectly neutralized, for they have not the leaſt taſte of acidity.

Chemical experiments prove that no

metals are ſoluble, or can poſſibly enter the compoſition of water, unleſs the metal be firſt diſſolved or converted into a ſalt, or vitriol.

Of all the metals there is none that diſſolves ſo readily, in all kinds of acids, as iron. Thus pure water itſelf, on account of the fixed air, or aerial acid, which enters its compoſition, ſoon diſſolves, and forms a union with this metal. A piece of red hot iron, quenched in water, communicates an aſtringency to it; and it is a familiar obſervation, that the moiſture of the air, rain, &c. corrodes iron, turns it into ruſt, and impregnates itſelf therewith. In the ſame manner all ſprings which waſh the beds of iron ore, or paſs through red clay grounds, become impregnated with iron*.

Of

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* Thoſe chalybeate waters, in which the impregnation of fixed air, now called the aerial acid, predominates, are the beſt. An artificial mineral water of this kind may be made by diſſolving one grain of ſal martis, in a pint of ſpring water, and impregnating it with fixed air, from a mixture of oil of vitriol and chalk, by means of Nooth's machine.

Of the CLIMATE *of* PENNSYLVANIA.

The following Account of the Climate of Pennſylvania, is extracted principally from the Obſervations of Dr. Ruſh.

THE river Delaware was frozen over near three months during the Winter of 1780: The thickneſs of the ice in the river, near the city of Philadelphia, was from 16 to 19 inches, and the depth of the froſt in the ground was from four to five feet, according to the expoſure of the ground and the quality of the ſoil.

IN the month of January, the mercury ſtood for ſeveral hours at 5 degrees below 0, in Farenheit's thermometer, and during the whole of this month it never roſe, except one day in the city of Philadelphia, to the freezing point.

"THE cold of the Winter of 1783—4 was as intenſe, but not ſo ſteady as that of 1780—A thaw took place in January, this

year,

year, which rendered the Delaware navigable for a few days.

THE Summer which ſucceeded the Winter of 1780, was uniformly warm. The mercury in the thermometer, during this Summer, ſtood on one day, the 15th of Auguſt, at 95°, and fluctuated between 93 and 80° for many weeks. The thermometer ſtood in the ſhade in the open air.

THERE are ſeldom more than 20 or 30 days in Summer or Winter, in Pennſylvania, in which the mercury riſes above 80° in the former, or falls below 30° in the latter ſeaſon.

THE warmeſt part of the day, in Summer, is at 2 o'clock in ordinary, and at 3 in the afternoon in extremely warm weather.— From theſe hours the heat gradually diminiſhes till the enſuing morning.—The cooleſt part of the 24 hours is at the break of day.

THERE are ſeldom more than three or

four nights in a Summer, in which the heat of the air is nearly the ſame as in the preceding day.—After the warmeſt days, the evenings are generally agreeable, and often delightful.—The higher the Mercury riſes in the day time, the lower it falls the ſucceeding night. When the Mercury is at 80° it generally falls to 68°; while it deſcends when at 60° only to 56°. This diſproportion between the temperature of the day and night in Summer, is always greateſt in the month of Auguſt. The dews at this time are heavy in proportion to the coolneſs of the evening: They are ſometimes ſo conſiderable as to wet the clothes; and there are inſtances, in which marſh-meadows, and even creeks, which have been dry during the Summer, have been ſupplied with their uſual waters, from no other ſource than the dews which have fallen in this month, or in the firſt weeks of September. There is another circumſtance connected with the one juſt mentioned, which contributes very much to mitigate the heat of Summer; and that is, it ſeldom continues more than two or three days very great without being ſucceeded by ſhowers of rain, accompanied ſometimes by thunder and lightning, and ſucceeded by a north weſt wind, which produces a coolneſs in the air, that is highly invigorating and agreeable.

THE warmeſt weather is generally in the month of July, but intenſely warm days are often felt in May, June, Auguſt, and September, (particularly in the two laſt mentioned months.)

THE tranſitions from heat to cold are often very ſudden, and ſometimes to very diſtant degrees. After a day in which the mercury has ſtood at 86° and even 90°, it has ſometimes fallen, in the courſe of a ſingle night, to the 65th and often to the 60th degree. In a Summer month, in the year 1775, the mercury was obſerved to fall 20° in an hour and an half. The weather is equally variable during the greateſt part of the Winter*. The mercury fell from 37 to 4½° below 0, in 24 hours, between the 4th and 5th of February, 1788.

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* "The weather on the weſt ſide of the great range of mountains, collectively called the Alleghany Mountains, is much more temperate and regular than on the eaſt ſide. The inhabitants never feel thoſe quick tranſitions of the wind from north

THE rivers Delaware, Schuylkill, and Suſquehanna, have been frozen ſo as to bear horſes and carriages of all kinds; and thawed, to be paſſable in boats, two or three times in the courſe of the ſame Winter.

DEWS begin to fall very copiouſly in Auguſt.

THE time in which froſt and ice begin to ſhew themſelves in the neighbourhood of Philadelphia, is generally about the latter end of October, or beginning of November; but the intenſe cold ſeldom ſets-in before the 20th or 25th of December. The coldeſt weather is commonly in January. A cold day in Winter is often ſucceeded by a moderate evening.

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north and ſouth, as thoſe ſo frequently experience, who live eaſtward of the mountains, and near the ſea. The hot ſouthwardly winds become chilled by paſſing over the long chain of theſe mountains." *Morſe's Geography*.

The greateſt degree of cold which has been obſerved at Philadelphia, within the laſt 20 years, is 5° below 0; and the greateſt degree of heat upon record, in the ſame place is 95°.

The ſtandard temperature of the air is $52\frac{1}{2}$, which is the temperature of our deepeſt wells; as alſo the mean heat of the common ſpring water.

The Spring in Pennſylvania, is generally leſs pleaſant than in many other countries. In March, the weather is ſtormy, variable, and cold. In April, and ſometimes in the beginning of May, it is moiſt, and accompanied by a degree of cold, which has been called rawneſs, and which, from its diſagreeable effects upon the temper, may be called the *Sirocco* of this country.

The month of May, in 1786, will long be remembered, for having furniſhed a very uncommon inſtance of the abſence of the Sun for 14 days, and of conſtant damp or rainy weather.

THE month of June* is the only month in the year which reſembles a Spring month in the ſouthern countries of Europe. The weather is then generally temperate, the ſky is ſerene, and the verdure of the country is univerſal and delightful.

THE Autumn is the moſt agreeable ſeaſon of the year in Pennſylvania. The cool evenings and mornings, which generally begin about the firſt week in September, are ſucceeded by a moderate temperature of the air during the day. This weather continues with a gradual and almoſt imperceptible increaſe of cold, till after the middle of October: After which more rain falls, and coldneſs ſucceeds. The indians predict the cold of Winter from the quantity of rain which falls during the Autumn†."

IN Winter the winds generally come from the

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[*] June, 1791, was an exception to theſe obſervations, for the heat was intenſe, and had been ſo from the latter end of May. The wind blew conſtantly from the S. and S. W.

[†] The greater the moiſture, the greater will be the evaporation, and the greater the evaporation, the greater will be the coldneſs of the atmoſphere.

the north weſt in fair, and from the north eaſt in wet weather. The former are uncommonly dry as well as cold, the latter are inſufferably cold and moiſt.

THE winds in fair weather in the Spring, and in warm weather in the Summer, generally blow from the ſouth weſt, and from weſt north weſt. The ſouth weſt winds frequently bring with them refreſhing ſhowers, and moderate the heat of the weather, particularly when ſucceeded by a north weſt wind.

THE diſſolution of the ice and ſnow in the Spring, is ſometimes ſo ſudden as to ſwell the creeks and rivers in every part of the ſtate, to overwhelm large tracts of land in their vicinity, and deſtroy the crops of the diſappointed farmer and grazier. The wind at theſe times commonly comes from the ſouth weſt.

* IT is a prevailing opinion, that the extremes

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* It appears from Mr. Kalm's Travels, that the Winter ſet in

tremes of heat, moiſture, and cold, are annually diminiſhing in this ſtate, by the clearing of woods, draining of ſwamps, and other arts of cultivation.

"THOUGH the Sun (ſays Doctor Hugh Williamſon) is doubtleſs the general ſource of heat, yet we obſerve that countries are not heated in proportion to their diſtance from the Sun, nor in proportion to their diſtance from the Equator. When the rays of the Sun ſtrike the earth in a perpendicular direction, they will be reflected in the ſame direction on the particles of the air through which they have paſſed, and thus increaſe their heat.

"A GREATER number of rays will likewiſe

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in ſooner formerly than it did when he was in America, which was from 1748 to 1751.

According to the account which he received from Iſaac Norris, Eſq; the river Delware, when the Engliſh firſt ſettled in Pennſylvania, was commonly covered with ice about the middle of November, old ſtile; ſo that the merchants were obliged to clear out their ſhips before that time, for fear of the navigation's being obſtructed if they delayed. On the contrary, adds Mr. Kalm, this river ſeldom freezes over, at preſent, before the middle of December, old ſtile. The Spring returns here much later than formerly.

wiſe ſtrike the earth in that direction, than when they fall obliquely, hence the greater heat in that direction, cæteris paribus.

" AIR is obſerved to be heated to very different degrees in different countries, which are in the ſame latitude, according as they abound in rough mountains, fertile plains, or ſandy deſert, as they are ſurrounded by land or by ſea, or according to the different winds which prevail in thoſe countries. The temperature of Pennſylvania is very different from that of Portugal; and that of England is different from that of Saxony, on the neighbouring continent, though they are under the ſame parallels. In order then, to form a judgment of the climate of any country, we muſt not only conſider the latitude of the place, but alſo the face and condition of the country, and the winds moſt prevalent there at the different ſeaſons of the year; if any of theſe ſhould change, the climate muſt alſo be changed more or leſs, for it is in a great meaſure governed by theſe."

" THE ſurface of a country may be changed by the arts of human induſtry in clearing its woods, draining off its waters, and levelling its mountains, (as is exemplified in China) where by theſe means the air, in very unfavourable ſituations, has been rendered exceedingly wholeſome, according to the accounts of the obſerving Lind.

" A TRANSIENT view of the cauſe of winds will convince us that their courſe may alſo be changed.

" IT is well known that moſt winds are occaſioned by the heat of the Sun.

" WERE the Sun to ſtand ſtill over any part of the ſurface of the earth, the wind would conſtantly blow to that place from all directions: For the air in that part being rarified by the heat of the Sun, would be expanded, and thus become ſpecifically lighter, whence it would aſcend, and the heavier air in the neighbouring parts, would ruſh into its place; this too being heated by the Sun's rays, and by the warm ſurface of the earth, would inſtantly aſcend and give place to that which is colder and more denſe.

"But as the Sun moves, or ſeems to move between the tropics, from eaſt to weſt, there would be a conſtant current of air ſeting towards the Sun from the N. S. and E. while the current, which would alſo come from the weſt, is prevented or turned back by the Sun, which moves with great rapidity in an oppoſite direction. The current, coming from the north and ſouth, falls in with that from the eaſt, and is preſently bent in the ſame direction. This conſtitutes the *Trade Winds**, which are found in the Atlantic, and in the great South Sea.

"Were the ſurface of the earth homogeneous—were it all covered with water, or all ſmooth dry land, the eaſterly winds would always prevail quite round the globe to ſome diſtance beyond the tropics. But the waters along the equator are divided by two or three conſiderable portions of land, which retain the heat in a different manner from the water, and reflect the Sun's rays in very different proportions, ſo that they not only ſtop the eaſterly current of air, but often change it to the oppoſite direction. For along the weſterly coaſt of Africa and South America, the winds commonly blow from the weſt; that is, they blow from a cold ſurface to that which is warmer, from the ſea upon the land. In warm countries, or in the warm ſeaſons of any country, the ſurface of the land is warmer than the ſurface of the water." [But the reverſe is the caſe in cold countries, and in cold ſeaſons of any country, without the tropics.]

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* In the Gulph of Guinea the S. W. wind propels all the clouds, formed by marine exhalations, which float along the ſouth coaſt of Africa, towards the land, and being compreſſed by them, againſt the mountains, it frequently occaſions deluges of rain.

The continual eaſterly trade-wind, likewiſe, where its impetuoſity is felt along the eaſtern coaſt of America, brings with it the like bad weather. *Muſchenbroek.*

"The ſurface of the earth being immoveably expoſed to the ſun, receives and retains the heat, and grows warmer by every additional ray. The ſurface of the ſea is not ſoon heated., becauſe the particles which are uppermoſt this hour, will preſently be overwhelmed by thoſe that are colder, and theſe by others in ſucceſſion."

"FROM theſe trite and general obſervations reſpecting the cauſe of winds, the reaſon is obvious, why north weſt winds prevail during the winter ſeaſon, in a country lying, as this does, in a direction nearly from the N. E. to the S. W.—The ſurface of the earth at this ſeaſon being always colder than that of the ſea. To this may be added, that our coaſt is conſtantly waſhed by a current of warm water, which being driven to the weſt by the eaſterly trade winds near the equator, is checked in the gulf of Mexico, and forced to eſcape to the north eaſtward to give place to the ſucceeding current.

"LET us now enquire, whether any change of circumſtances would reduce the violence of theſe north weſt winds, which prevail in Winter.

"IT has been proved by experiments, that hard and ſmooth ſurfaces, receive, retain, and reflect heat, better than thoſe which are ſoft, rough, or unequal; and a clear, ſmooth, plain field, eſpecially if ſandy and dry, is obſerved to reflect more heat than one that is covered with trees, buſhes, or graſs, and more particularly if the ſoil is moiſt."——It has alſo been diſcovered that a ſimple ſolution of water in air always produces a ſenſible increaſe of cold.

"FROM theſe premiſes eſtabliſhed on experiments and obſervation, it may be rationally concluded, that when in the courſe of time, this continent becomes populated, cleared, cultivated, improved, and the moiſture of the ſoil exhauſted far into the frozen regions of the north, that the bleak winds will become more mild, and the Winters leſs cold in the middle ſtates, but more eſpecially in thoſe to the ſouthward."

"WHAT Philoſophy teaches us to expect in the preſent inſtance, appears to be confirmed by what has happened in the climate of Italy. The temperature of which, we are aſſured from unexceptionable authority, is at preſent much more mild than it was when Virgil wrote his Georgics. This change of climate Dr. Williamſon aſcribes to the population and conſequent culture which has gradually taken place in the more northern countries of Europe.

" Perhaps it may be apprehended, that if the cultivation, and levelling a country, would mitigate the ſeverity of the Winters, it would increaſe the *heat* of the Summers in a proportionate degree. But common obſervation, as well as the principles of Philoſophy, ſhew that there is no foundation for ſuch apprehenſion. For during the greateſt Summer heats it it found, that the extraordinary heat of the atmoſphere does not riſe to any conſiderable height, and in the upper reons it is perpetually cold, both becauſe the air in thoſe regions is too remote from the earth to be warmed by the heat reflected from its ſurface, and becauſe the air in thoſe higher regions, not being preſſed by ſuch a weight of incumbent atmoſphere, is too rare to be ſuſceptible of a great degree of heat."

" Hence it is evident, that nothing is wanting, in the midſt of Summer, to render the country agreeably cool, but a proper mixture of the cold air which is above, with the warm air below. This may be effected by any cauſe which increaſes the winds, ſuch as ſhowers of rain, thunder guſts, and the cooler air of mountains preſſing towards more heated parts, to reſtore the equilibrium, agreeable to the eſtabliſhed laws of matter and motion.

" From all the circumſtances which have been mentioned, there is no unreaſonable proſpect (and I am ſure it is a very pleaſing one), that when this country comes to be diverſified by vaſt tracts of clear land, interſected by ridges of rude mountains, the land winds in Summer, to ſay nothing of thoſe which come from the ſea, or from the lakes, charged with moiſture, muſt certainly be much purer and ſalutary, as well as temperate and uniform, than they are at preſent."

" Should that delightful æra ever arrive, how glorious, how enviable, will be the lot of the Americans " did they their bliſs but know"—For whom the earth pours forth with liberal hand, her choiceſt ſtores*.

NOTWITHSTANDING what has been ſaid in favour of the proſpect of a change of climate for the better in the United States, it muſt not be concealed, that it has been confidently aſſerted by gentlemen of extenſive geographical knowledge, that no ſuch change has taken place in the climate of China, the capital of which, Pekin, is ſituated in latitude 39° 54, which is nearly the ſame degree of latitude, and on the ſame parallel with Philadelphia, though almoſt the whole extent of country north of it is cleared, and in a ſtate of the moſt perfect cultivation.—The greateſt cold experienced there in the

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* In this favoured portion of the world, we have already, in a great meaſure, regained the native dignity of our ſpecies—We are exempt from the deſolating effects of war; we are under no oppreſſion from miſguided or intolerant religion; we are ſtrangers to thoſe feudal inſtitutions which have enſlaved the greateſt part of Europe, as well as to that accurſed deſpotiſm which prevails over half the globe; our laws are ſimple and juſt, though too much retarded in their execution; our induſtry is unreſtrained, and every thing proſpers.

courſe of five years, was 5° below 0, the greateſt heat was 98°; but in July, 1773, the Mercury roſe there to 108 and 110.—*Vid.* the quotation in Dr. Ruſhe's account of the climate of Pennſylvania; and Kirwan's Eſtimate of the temperature of different Latitudes.

We have inconteſtable proofs that heat does not altogether depend upon proximity to the equator, but varies at inconſiderable diſtances, chiefly according to the elevation of the ground, and the current of the winds, as alſo from the nature of the ſoil.

Upon theſe, the temperature of the climate, the colour, ſtrength and activity, the conſtitutions and health, of the inhabitants greatly depend. And it is a fact, which ought to be known to every body, that in countries the moſt noted for ſickneſs and mortality, and in the hotteſt climates, thoſe who have it in their power to ſelect elevated ſituations, where the ſoil is gravelly and dry, may enjoy good health, provided they lead temperate and regular lives, during every ſeaſon of the year.—*See* Linds' Eſſay on Hot Climates.

ACCORDING to the obſervations of Mr. Reinhold Foſter, it is not only the clearing of woods, but cultivation and population, that alter the climate of a country, and make it mild and temperate. "The Romans looked upon the winters of Germany and England as very ſevere; but happily both countries have at preſent a much more mild climate than formerly, owing to the three circumſtances above-mentioned.

"NEAR Peterſburgh, under 60° N. L. the river Neva, was covered with ice in 1765, in the beginning of December, and cleared of it April 11th, 1766. At Tſaritſin, which is under 48° 40. N. L. the river Volga was covered with ice the 26th of November, 1765, and the ice broke in the river, April 27th, 1766 (all old ſtile). Is it not almoſt incredible, that in a place almoſt 12 degrees nearer to the ſouth, the effects of cold ſhould be felt longer and more ſeverely than in the more northern climate? And though the neighbourhood of Peterſburgh has a great many woods, the cold was, however, leſs ſevere and laſting: Tſaritſin, on the contrary, has no woods for many hundred miles in its neighbourhood, if we except ſome few trees and buſhes along the Volga and its iſles, and the low land along it; wherever the eye looks to the eaſt, there are vaſt plains without woods, for many hundred miles.

The clearing a country of woods cannot, therefore, alone contribute ſo much to make the climate milder, but cultivation does more. "In an hundred ſquare miles near Tſaritſin, there is not ſo much cultivated land as there is within ten miles of Peterſburgh; it is in proportion to the number of the inhabitants of both places, and this makes the chief difference of the climate. There is ſtill another conſideration; Peterſburgh lies near the ſea, and Tſaritſin in an inland country, and, generally ſpeaking, countries near the ſea have been obſerved to enjoy a milder climate. Theſe few remarks will be, I believe, ſufficient to enable every body to judge of the changes of the climate in various countries, which, no doubt, grow warmer and more temperate as cultivation and population increaſe.

Mr. Kalm (in Vol. II. p. 249) ſays, the corn near Quebec, in Canada, formerly was never ripe till the 15th or 16th of September; but that for ſome years previous to the year 1749, the harveſt began in the laſt week of Auguſt (old ſtile).—The inhabitants alſo informed him, that formerly the corn never ripened; but ſince the woods have been ſufficiently cleared, the beams of the ſun have had more room to operate, and it ripens perfectly.

"Some parts of Italy bear melancholy proofs of the alterations that accidental cauſes make on the atmoſphere; for the Campagna di Roma, where the ancient Romans enjoyed as ſalubrious air as is to be found on any part of the globe, is now almoſt peſtilential, through the decreaſe of inhabitants, which has occaſioned a ſtagnation of waters and putrid exhalations."

Of the DISEASES *of* PENNSYLVANIA.

DAILY obſervations convince us, that the diſeaſes which occur in this ſtate, are not very numerous or complicated, except in the city, where the greateſt part of the inhabitants are employed in ſedentary occupations.

THE diſeaſes which occur in the country are generally of an inflammatory nature, and are moſt frequent the latter end of Autumn, and in the early part of Spring; theſe are often occaſioned by unavoidable or imprudent expoſure to cold and rainy weather, and by the neglect of changing wet and damp clothes for dry and warm ones; but more commonly by the neglect of putting on a Winter dreſs as ſoon as froſty weather begins in Autumn, and by the imprudent practice of changing warm and thick cloathing for a thinner and cooler dreſs too early in the ſpring: Even in the low and marſhy ſituations, the richer inhabitants, who have dry apartments, and who live on ſubſtantial diet during the autumnal ſeaſon, when Intermitting and Remitting Fevers are epidemic, are much leſs liable to be affected by the poiſonous effluvia of the putrid ſoil than the poorer claſs, who are more expoſed, and obliged to live abſtemiouſly, and to go thinly clad. The poorer claſs of people, who reſide in the towns and large villages (though labouring under all the diſadvantages of indigence) where the impurities with which the atmoſphere is charged, in conſequence of the action of heat upon a moiſt ſoil, and the extrication of fixed air from decaying and putrid vegetables, is corrected by numerous fires, and ventilation is favoured by the arrangement of the houſes into ſtreets, are leſs ſubject to the diſorders in queſtion, than thoſe who live in detached houſes, or in the ſuburbs, where that advantage is wanting.

THE great and ſudden changes which ſo frequently happen in the ſtate of the weather, both in Summer and Winter, may be conſidered as the principal cauſes of the diſeaſes of this ſtate.—For it appears from Kirwan's Eſtimate of Climates, that there is no country in the known world, ſo ſubject to ſudden and violent changes of weather as this.

The following is a Catalogue of all the Diſeaſes, depending on climate and ſituation, which occur at different ſeaſons of the year, in this ſtate, viz.

In WINTER *and* SPRING.

Phrenitis, or inflammation of the brain ;
Opthalmia, or inflammation of the eye ;
Eryſipelas, or inflammation of the ſkin ;
Odontalgia, or tooth ach ;
Rheumatiſm, { or inflammatory affection of the muſcles and joints ;
Catarrh, or taking cold ;
Cynanche Tonſillaris, or inflammatory quinſy ;
Cynanche Trachealis, or ſuffocating catarrh ;
Pleuriſy, or inflammation of the pleura ;
Peripneumony, or inflammation of the lungs ;
Hepatitis, or inflammation of the liver ;

Splenitis, *Nephritis*, *Cyſtitis*, *Hyſteritis*, *&c.*
Gaſtritis, or inflammation of the ſtomach,
Enteritis, or inflammation of the inteſtines.

In SUMMER.

Colic, *Diarrhœa*, *and Cholera.*

In AUTUMN.

Intermitting Fever, *Remitting Fever*, *and the Dyſentery.*

INFLAMMATORY diſeaſes, however, are not confined to Winter or Spring, but frequently occur at all ſeaſons, eſpecially to perſons accuſtomed to daily exerciſe, in every kind of weather, and to free indulgence in animal food and ſpiritous drink.

THE Epilepſy, the Apoplexy, and the Palſy, occur more frequently the latter end of Autumn, and beginning of Winter, than at any other ſeaſon. The Gout, occurs, more frequently in the Spring and Antumn, than at any other ſeaſon ; but there are very few people troubled with it at all here. Hemorrhages, are more frequent the latter end of Spring and beginning of Summer than any other time.

THE greateſt number of the caſes of Phthiſis, Pulmonalis, which have come under my obſervation, have been preceded by Hemoptyſis.

ALL the caſes of Tetanus that I have hitherto ſeen, except one, were occaſioned by laceration, or puncture of tendinous or muſcular parts. The only caſe which ever came under my care, that was not occaſioned by external injury, was occaſioned by expoſure to a N. E. wind, accompanied with rain, when the perſon was debilitated, in conſequence of confinement, and the free uſe of Mercury.—This patient was a pilot by occupation, in the 32d year of his age, and had been much addicted to free and irregular living.—He was entirely deprived of the power of ſwallowing by the diſeaſe; but was relieved in about 30 hours, in conſequence of being put into a ſemi-cupium of water as warm as could be borne without injury by a perſon in health, and by emollient oily Gliſters, containing 60 drops of Laudanum, repeated every ſix hours.

As ſoon as he recovered the power of ſwallowing, he took a bolus of opium, gr. ij. Tart. Emet. gr. $\frac{1}{4}$ every ſix hours, with Snake-root tea, for two or three days; after which he gradually recovered without any other medicine.

CONTAGIOUS diſeaſes occur at all ſeaſons, particularly the Small Pox, Meaſles, Scarlatina-Anginoſa, Cynanche-Ulceroſa, or Putrid Quinſy, Typhus, Hooping Cough, Mumps, &c.

OF late years the Small Pox has never been entirely extinct in the city of Philadelphia: The Meaſles has been leſs conſtant: The Scarlatina has been epidemic here in the

Autumn and Winter, for ſome years paſt; but at preſent, it is only Sporadic, viz. in October, 1791.

SOME one or more contagious diſeaſe, being always more or leſs prevalent in the city, is one reaſon why a greater proportion of children die annually in the city than in the country.

THE Influenza, or contagious Catarrh, has been epidemic in America three different times. The firſt time of its appearance that I can find recorded, was in the Autumn of 1733; previous to which it had ſpread over every country in Europe, beginning in the North of Germany. From Europe it appears to have been imported into America. It was again obſerved, and recorded particularly by Dr. Thomas Bond, in 1761. At that time its progreſs was traced from the Weſt India iſlands to Halifax in Nova-Scotia, where it appeared in the Spring; from thence it reached Boſton, and the neighbouring ſtates, and afterwards ſpread in a moſt rapid manner over the whole continent of North America, without being retarded in its progreſs by any alteration in the ſenſible qualities of the atmoſphere or the courſe of the winds, till the month of July, after which it was no more heard of.

THIS diſeaſe made its appearance a third time in America, in 1789. It was firſt obſerved at New-York, in September, from whence it ſpread, in the courſe of ſix or eight weeks, over every part of the union, and paſſed to ſeveral of the Weſt-India Iſlands; but whether it proceeded to the Spaniſh ſettlements in South America, or whether the Aborigines of North America were affected by it, I have not been able to learn. Perſons of all ages and deſcriptions were affected by it in Philadelphia; and its contagious effects were ſo uncommonly rapid, that many ſuppoſed its cauſe was blended with, or ſuſpended in the atmoſphere, and conveyed by the winds; but the analogy of every other ſpecies of contagion contradicts this ſuppoſition. Its continuance in Philadelphia was about ſix weeks : how it was generated, or from whence it was derived, I have not been able to inform myſelf. The origin of this diſeaſe appears to be as obſcure as that of the Small Pox or Meaſles. The firſt account of its appearance in Europe, upon record, was in the year 1557, at which time its progreſs was traced from Aſia to Conſtantinople, &c. The ſymptoms in general reſembled the common Catarrh from taking cold ; but it differed from it materially in being attended, in moſt caſes, with a conſiderable proſtration of ſtrength, and impaired vigour in all the functions of the body.

I WAS always guided in my practice by the ſymptoms preſent, and do not recollect a caſe that did not do well : The ſymptoms were ſo mild with multitudes, that they required no medicinal aid. In general, mild Antimonials, and the Antiphlogiſtic Regimen, were found ſerviceable ; and when the inflammatory ſymptoms ſubſided, Opium afforded relief to the Cough.

SEVERAL were benefited by bleeding; but in general the patients recovered ſooner when it was omitted, except when Pneumonic ſymptoms; ſuch as acute pain, and full or hard pulſe indicated it*.

THE

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* The following is extracted from a Letter from Dr. Ruſh, reſpecting the periods in which the Influenza has appeared in America, dated Oct. 7th, 1791.

"FROM the moſt ſucceſsful enquiries I have been able to make, I have found that the Influenza prevailed in this country in the year 1733. It was again epidemic in the year 1749. This laſt information I received *indirectly* from the late Dr. Barnet of Elizabeth Town; who added, that the univerſal remedy for it among the common people, was a drink compoſed of a jill of vinegar, a pint of water, and two table ſpoonfulls of melaſſes. It appeared again in the ſpring of the year 1761, and was both violent and univerſal. I recollect all its ſymptoms perfectly, it being the firſt year I began the ſtudy of medicine. It was diſtinguiſhed by the name of "this Cold," and "the great Cold." Dr. Gilchriſt, takes notice of it in the Phyſical and Literary Eſſays of Edinburgh. Notwithſtanding this epidemic was ſo univerſal as to check buſineſs in many places, and to exclude all other ſubjects of converſation, yet I was lately ſurprized to find only three of the citizens of Philadelphia, who had retained a diſtinct recollection of it. Dr. Shoeft, in his travels through North America, mentions it upon the authority of the late Dr. Thomas Bond.

"THE Influenza made its next appearance in the Winter, 1770-1; an account of which I have preſerved in my note-

book

The Hydrophobia is ſo rare an occurence here that I have never ſeen a caſe of it. Dr. Ruſh and Dr. Percival have, in my opinion, thrown more light on the nature of this diſeaſe than any other writers.

The accounts which have been publiſhed reſpecting the faſcinating power of Snakes in this country, have originated in ignorance and credulity, and are entirely groundleſs; as well as thoſe tales which are often told of their breeding in the livers of Dogs which have been bitten by them.

The experiments of the induſtrious and ingenious Fontana, of Tuſcany, furniſh ample proof, that the bite of the Viper is ſeldom

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book, and have found it to agree exactly with the hiſtories of the Influenza in this and other countries. I need not mention to you its appearance in the Autumn of 1789. My inquiries and obſervations ſatisfy me, that it appeared again in the Spring of 1790, and in the Winter of 1790-1. I ſhall not trouble you with a detail of the facts upon which I ground this aſſertion, as I have prepared a full account of them to be laid before the public in a 2d vol. of Medical Enquiries, which I am now preparing for the preſs."

dom ſatal to men, or the larger claſs of animals, though it inſtantly kills ſmall ones: hence a preſumption ariſes, that the remedies employed by the Indians owe their credit to ignorance of this circumſtance. According to the laſt quoted writer, the immediate application of Lunar Cauſtic, to a part bitten by a Snake, prevents it from having any ill effect: This produces an eſchar, and a conſiderable wound, which is afterwards to be dreſſed with common Cerate.

FEWER diſeaſes prevail in Autumn, when the ground is frequently refreſhed by ſhowers, and the ponds are repleniſhed with water, than in dry ones. This circumſtance is thus explained by Dr. Ruſh*. "While the creeks and rivers are confined within ſteady

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* It is remarked by Dr. Percival, "that wet ſeaſons are generally more free from epidemic diſeaſes, than dry ones. And that thoſe years are moſt unfavourable to health, in which heavy rains fall about the beginning of Summer, and are ſucceeded by great and uninterrupted heats. For the earth being thus drenched with moiſture, and the low lands overflowed with water, the exhalations become conſtant, copious, and often putrid."

bounds, there is little or no exhalation of febrile miaſmata from their ſhores." "The dry Summers of 1780, 1781 and 1782, by reducing the rivers and creeks, far below their ancient marks, while the wet Spring of 1784 and 1785, by ſwelling them beyond their natural heights, have when they have fallen, left a large and extenſive ſurface of moiſt ground, expoſed to the action of the ſun, and of courſe to the generation and exhalation of febrile miaſmata."

As tables of Meteorological Obſervations will be annexed, which will ſhew the variableneſs and viciſſitudes to which the weather is liable in this climate, I ſhall add nothing farther on the ſubject here; but ſhall now proceed to give an account of the diſeaſes to which

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"JOAN LEO, in his hiſtory of Africa relates, that if heavy rains fall in that country, during the months of July and Auguſt, the Plague uſually breaks out the September following. But in European climates, it is well remarked by Sir John Pringle, that frequent ſhowers in Summer, cool the air, check the exceſs of vapour, dilute and refreſh the corrupted waters, and precipitate the noxious effluvia, which float in the atmoſphere." Percival's Eſſays, 4th Edition, vol. 2d. p. 22.

which the inhabitants of Philadelphia are more particularly liable.

The diſeaſes to which the opulent and faſhionable claſs of the men ; are moſt ſubject are theſe, viz. Apoplexy, Palſey, Epilepſy, Dyſpepſia, Jaundice, Gout, Aſthma, Hypochondria, Dropſy, &c.

The ladies are moſt ſubject to the following, viz. Head-ach, *accompanied with ſickneſs at ſtomach*, Spaſmodic, Aſthma, Hyſteria, Dyſpepſia, Hypochondria, Catarrh, Hemoptyſis, Phthiſis Pulmonalis, Colic, Menorrhagia, Abortion, Sterility, Melancholia, Chronic weakneſſes, &c.

Daily obſervation teaches us, that the generality of the diſeaſes juſt mentioned, to which men of faſhion and opulence are moſt ſubject, proceed from exceſſive indulgence in the pleaſures of the table, and in drinking wine and other liquors to exceſs, joined to the want of proper exerciſe—doſing away the ſalutary hours of the morning in bed ; reſpiring the confined air of a chamber; and to diſcontent of mind for want of ſome intereſting purſuit.

By the joint effects of intemperance and indolence, the digeſtion ſooner or later never fails of being impaired. And as on the due performance of digeſtion, much of our health, eaſe, and proſpect of longevity depends, we ought moſt ſtudiouſly to avoid every thing that has a probable chance of interrupting it.

The quality of Aliment moſt wholeſome, may generally be determined by the experience of each individual: The principal inconvenience ariſes from quantity.

The judicious Dr. Fothergill obſerves, that "the Author of Nature, has ſo formed and conſtructed the organs of digeſtion, that we can gradually accommodate ourſelves to every ſpecies of Aliment. A great part of the eaſtern world, ſubſiſts principally upon rice and other vegetables: many countries live almoſt ſolely on fiſh; others on a mixed diet of animal and vegetable ſubſtances, without ſuffering injury."

No kind of food hurts us, if gradually accuſtomed to it; but this is not the caſe in regard to quantity. From errors in this, in a great meaſure, proceed the formidable progeny which have already been enumerated.

"In a weak ſtomach, a large proportion of bread is indigeſtible; it turns ſour, produces Heart-burn, Flatulencies, Spaſmodic pains, &c. Valetudinarians ſhould therefore always uſe it with moderation."

In Philadelphia animal food, of one kind or other, conſtitutes the chief part of our nouriſhment.

That there are ſome kinds of more eaſy, ſome of harder digeſtion than others, is well known to every body. The moſt difficult of theſe, will be digeſted without occaſioning much diſturbance, if taken in ſmall quantities; but if a perſon eats as much of ham, ſalted beef or bacon, as he ought to do of freſh fiſh or chicken, he may, and generally will, ſuffer by it.

After a plentiful dinner of animal food, it is now the cuſtom here, to introduce deſerts of rich Sweet-Meats, Cuſtards, Jellies, and Fruits, and of various kinds; all of which at ſuch time is unnatural and improper, becauſe of the extraordinary ſtimulus ſuch a load of heterogeneous ſubſtances muſt give to the fibres of the ſtomach, both in a mechanical and chemical ſenſe. "By theſe means freſh labour is added to a tired digeſtion." The rule where faſhion cannot altogether be diſpenſed with, is carefully to obſerve, that the ſum of all together, does not exceed due bounds, or encroach upon the firſt feelings of ſatiety.

With reſpect to ſtrong liquors, the leſs in quantity, when in good health, the more conſiſtent with the preſervation of that health and long life. The ſafeſt and moſt natural practice is to drink as much wine and water, or any other agreeable fermented liquor, dur-the repaſt, as thirſt or inclination may require, and then to diſmiſs the bottle entirely; after which a diſh of ſtrong coffee may be introduced with propriety.

" The ſick Head-ach, as it is called, is generally the conſequence of an indigeſted meal, frequently of a heavy ſupper; and for the cure, requires the occaſional uſe of mild Pukes, laxatives of Rubarb with Columbo-root, and a ſtrict attention to regimen and daily exerciſe in the open air in ſeaſonable weather."

The diſeaſes to which the women of faſhion are moſt ſubject, in general, proceed from the oppoſite extreme: From too great abſtemiouſneſs in meats of a nutritive quality; from wine, but eſpecially from the want of exerciſe, while they indulge too much in regaling themſelves with ſtrong infuſions of palatable, but noxious, Tea.

A CONSIDERABLE number of their complaints alſo, proceed from the frequent changes of dreſs, and the alternate viciſſitudes from heat to cold, to which faſhion, and the love of pleaſure, expoſe them. There are inſtances of young ladies in this city, who, for the ſake of an elegant and admired ſhape, apply a leather bandage, dipt in water, round their waiſts every night when going to bed, which contracts as it becomes dry. The pernicious effects of this experiment muſt be evident to every perſon of common ſenſe. They are alſo often injured by confined air.

" THE plant in the green houſe, the Sheep in the cot, and the moſt admired Beauty beneath her gilded roof," are equally injured by confined air.

FROM the beſt information which I have been able to obtain, more than one-fifth of all the children born in this city, die under two years of age—A conſiderable portion of theſe, fall victims to the contagious diſeaſes which never ceaſe to prevail; but the greateſt part die of Cholera, Diarrhæa, and Remitting Fever."

MECHANICS who follow ſedentary occupations, are particularly ſubject to Dyſpepſia, Colic, Coſtiveneſs, Hæmorrhoids, Hypochondria, Œdema, Pain in the Thorax, Phthiſis, Scurvy, Itch, Gravel.

"OF all the cauſes which conſpire to render life ſhort and miſerable, none has greater influence than the want of proper exerciſe."

WHOEVER examines the ſtructure and functions of the human body, muſt be convinced of this.

"THE Body is compoſed of an infinite number of veſſels, whoſe Fluids cannot be puſhed on, without the action and preſſure of the Muſcles; but if the Muſcles remain inactive, the Fluids will ſtagnate, and obſtructions will be formed, which cannot fail to occaſion diſeaſes. Both the ſanguiferous veſſels and the Lymphatics, are furniſhed with numerous Valves for the purpoſe of preventing the retrograde motion of their contents; but without the aſſiſtance of the Muſcles, this admirable contrivance is of little uſe."

THIS part of the animal œconomy proves to a demonſtration, the neceſſity of exerciſe for the preſervation of health.

"WHEN confined and unwholeſome air is added to the want of exerciſe, diſeaſes muſt be the conſequence."

IT is owing to the combination of theſe two circumſtances, that ſo many of the children of the poorer ſort of the inhabitants of this city die annually.

THE exerciſe of walking is preferable to any other mode, for thoſe who are not greatly debilitated or infirm; becauſe a greater number of Muſcles are thereby put in action than by any other.

THOSE who are confined to ſedentary employments, ſhould therefore devote a certain portion of their time, to taking a walk every day a few ſquares in the open air, and employ one afternoon of every week in ſome active diverſion.

A NUMBER of tradeſmen are often crowded together in the ſame ſmall apartment; this is particularly the caſe with Weavers, Taylors, Shoemakers, &c. In this ſituation they generally continue for many hours at a time, often with the addition of ſeveral candles burning, whereby the air becomes charged with the Phlogiſton iſſuing from them, as well as from the Lungs, which renders it unfit for expanding the Lungs ſufficiently, and of ſupplying the blood with the matter of heat. *See* Prieſtley's Philoſophical Experiments; Crawford, on Heat; and Goodwin on Reſpiration.

MANY Artiſts are liable to diſeaſes, in conſequence of their particular occupations. Chemiſts, Braſs-founders, workers in the various Minerals and Metals, Painters, Printers, &c. owing to the noxious effluvia (inſeparable from thoſe occupations) being received into the ſyſtem, by the Lungs or Stomach.

"THE Scholar, the Philoſopher, and the Stateſman, who devote almoſt the whole of their time to ſtudy and reflexion, ſeldom fail to impair their conſtitutions, or of becoming Valetudinarians."

"AND many young ladies, who regardleſs of exerciſe, cuſtomary meals, or neceſſary repoſe, are perpetually employed in reading Love-inſpiring Novels, not only impair their conſtitutions, but pervert their imaginations, and corrupt their morals to ſuch a degree, that they are ever after rendered unfit for the offices of domeſtic life, and unqualified to promote domeſtic felicity."

"THE conſtant confinement of children within doors, and at School in crowds, proves deſtructive to the lives of multitudes, and never fails to render the conſtitutions of thoſe whom it does not deſtroy, delicate and infirm."

"To be ſhut up ſeveral hours in the day in a School, as ſoon as a child can ſpeak intelligibly; ſecluded from the benefit of exerciſe, and the refreſhment of the open air, and compelled to learn what he cannot comprehend, is not only cruel, but inhuman." *See* Dr. Gregories Eſſays.

AMONG the very pooreſt ſort of people in the city, are ſometimes engendered Fevers of the moſt contagious and malignant nature, as well as the moſt loathſome cutaneous diſeaſes. Theſe proceed from want of proper food and raiment, and from living in cloſe, confined, and dirty apartments; in Garrets, Cellars, &c.—deſtitute of the common neceſſaries of life, in a vitiated atmoſphere.

"IT is remarkable, that not only the human ſpecies, but Cattle alſo, which have been kept upon too ſcanty an allowance of proviſion, or on that which is of a bad quality, are generally afflicted with diſeaſes of the ſkin, which ſeldom fail to diſappear when plentifully ſupplied with that which is wholeſome, and more nouriſhing."

"THE diſeaſes to which Labourers and Mechanics, who are employed in laborious occupations, are moſt ſubject, are, for the moſt part, very different from the foregoing: To theſe, the Eryſipelas is very incident: This is occaſioned by whatever gives a ſudden check to the perſpiration, after the heat of the body has been conſiderably augmented by exerciſe or any other cauſe; by the drinking of cold water, wet feet, keeping on wet cloaths, ſitting or lying on the damp ground, or expoſing the body to a current of air while in a ſtate of increaſed perſpiration."

PEOPLE who reſide in the country, are often injured by handling a ſmall tree, growing in moiſt ſwampy grounds, called by Linnæus Rhus Vernix, or poiſon Sumac, and by a ſmall creeping Vine, reſembling the Ivy, called Rhus Radicans, or Poiſon Vine. Theſe like the juice of the Weſt-India Caſhu Nut, raiſe numerous minute Veſſications over the ſurface of the ſkin, and cauſe conſiderable tumors of the parts affected. The veſſications contain a thin tranſparent ſerum; they frequently ulcerate and become purulent.— The cure conſiſts in waſhing the parts, not ulcerated, with weak Lead-water, or common Cold-water, and in dreſſing the ulcerated parts with Goulard's or Turner's Cerate.

THIS claſs of people are very apt to be affected with Vomitting and Purging, Bilious Colic, &c.—From eating heavy ſour bread, vegetables of difficult digeſtion, and drinking weak ſtale ſmall-beer, or the like.

"SUCH as have to lift or carry heavy burdens, as Porters, Labourers, Carpenters, Shipwrights, &c. are very ſubject to *Hernias*, and to ſpitting of blood," &c.

"THIS laſt is owing to the veſſels of the

Lungs being over diſtended, from their being obliged to draw in the air with much greater force, and alſo to keep their Lungs more diſtended than is neceſſary for common reſpiration."

The following is a copy of a letter from Dr. B. Ruſh, dated January 19th, 1791.

"The ſlow Nervous Fever, as deſcribed by Dr. Huxham, was a very common diſeaſe in Philadelphia, during my apprenticeſhip, (from the year 1760 to 1766) alſo for many years after, I ſettled in the city, which was in the year 1769.

"The late Dr. Thomas Cadwallader, who died in the year 1779, in the 71ſt year of his age, informed me, that he remembered the time when that ſpecies of Fever made its firſt appearance among our citizens, and that it had gradually travelled here from Connecticut, where it was known by the name of the *Long Fever*. It was very common during the late war, and appeared to be kept up by the intercourſe of our city with the American Hoſpitals and Britiſh Priſon Ships. During the laſt ſeven years it has gradually diſappeared. In the courſe of the three laſt years, I have ſeen but few caſes of it. It was very remarkable, that it never made its appearance in our city until the weather became cool. I have ſuſpected from this circumſtance, that it always had a portion of inflammatory, or what Dr. Cullen calls Synochoid Diatheſis, mixed with it.

IN July, the exciting cauſes of Fever ſeem to produce Cholera Morbus; in Auguſt and September, Remitting Fevers, with bilious diſcharges; and in October and November, the ſlow Nervous Fever, of Dr. Huxham.

THE diſappearance of this Fever is probably owing to the greater attention which has been paid latterly to cleanlineſs and freſh air, by all claſſes of people, both in ſickneſs health*. The remote cauſe of this Fever, I have ſupoſed to be *Contagion*, either from a diſeaſed body, or from a morbid matter generated in the extremities of the arteries from low diet, the want of cleanlineſs, and above all from that languor which is induced upon the circulation, by grief, or any other ſedative paſſion of the mind. I think too I have ſeen this Fever where it evidently aroſe from a neglected or ill-treated inflammatory Fever, in which neither of the above cauſes has operated. In this caſe it has occured in the Winter and Spring. In the latter ſeaſon, I have ſeen it ſucceed Pleuriſy, and accompanied through all its duration by the ſame kind of troubleſome Cough, which occurs in the laſt ſtage of that diſeaſe, when it ariſes from other cauſes."

MANY caſes have come under the author's notice of perſons of an infirm habit falling into the ſlow Nervous Fever, or Typhus Mitior,

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* THE labouring claſs of people are much better ſupplied with cloathing and wholeſome food at preſent, than they were before the reſtoration and increaſe of trade.

tior, after having been debilitated more than common by fatigue and grief, without being expoſed to contagion, but only in conſequence of a ſudden check of perſpiration. Hence it appears that the ſame remote cauſe produces a different form of diſeaſe, according to the difference of conſtitution on which it operates.

THE combined debilitating effects of fatigue and grief are very common cauſes of this Fever, in perſons of relaxed and infirm Conſtitutions, and it appears to depend intirely upon a diminution of nervous energy, but is moſt commonly the effect of infectious effluvia. *See* Dr. Hunter's opinion reſpecting the effects of vitiated air in producing Nervous Fever, in the London Medical Tranſactions.

THE Pulmonary Conſumption appears to be the moſt frequent, as well as the moſt fatal of the Chronic Diſeaſes which occur in Philadelphia. The greateſt proportion of thoſe who die of this malady, from the moſt accurate obſervations which I have been able to make, belong to the ſociety of the Friends; and of theſe, the number is nearly in the proportion of three females to one male.

PERHAPS the want of vivacity in the people of this ſociety, and the ſedentary lives of their females, are the principal cauſes of this difference; theſe certainly in ſome meaſure counter-balance the advantages which they enjoy from their ſuperior cleanlineſs, neatneſs, and ſobriety.

THE late judicious and experienced Dr. Fothergill, in my opinion, has given the beſt directions for the ſucceſsful treatment of the Pulmonary Conſumption of any author that has written on the ſubject. *See* his Works in Quarto, publiſhed by J. Cokely Lettſom, M. D.

THE method of treating this complaint by the daily exhibition of Pukes, as recommended by Dr. Reid, is in general a very injudicious and pernicious one. The one recommended by the late Dr. Brown, is ſtill more exceptionable.

The improvements propoſed by Dr. Ruſh, I have never had an opportunity of ſeeing put in practice; but have had conſiderable experience of the good effects produced by obſerving the method recommended by Dr. Fothergill, particularly in the incipient ſtage of the diſeaſe. When the diſeaſe is contracted in a northern climate, the patient ſhould always paſs his Winters, if poſſible, in a climate within the tropics.

Obſervations on the Weather and Diſeaſes which occurred at Philadelphia, in the year, 1790.

Meteorological Table for JANUARY.

Days.	THERMOMETER. 7 o'clock, A. M.	BAROMETER.	WIND.	WEATHER.
1ſt.	36°	29° 9′	S. W.	dry & clear.
10th.	21°	30° 1′	N. W.	clear, dry.
20th.	27°	30°	N. W.	do.
30th.	24°	30°	S. W.	clear.

"THE greateſt height of the Mercury in the Thermometer this Month, was on the 4th, which was 40°; and on the 6th, it was down to 20°, which was its loweſt."

"THE Barometer was at 30° 5′ on the 6th, which was its higheſt, and at 29° 6′, on the 9th, which was its loweſt."

THE DISEASES

MOST prevalent, were Catarrh and Rheumatiſm.

Meteorological Table for FEBRUARY.

THERMOMETER.		BAROMETER.	WIND.	WEATHER.
Days.	7 o'clock, A. M.			
1ſt.	35°	30° 1′	N. W.	cloudy.
10th.	8°	30° 5′	N. W.	clear.
20th.	38°	29° 8′	S. W.	cloudy.
28th.	33°	29° 9′	S. W.	clear.

"THE weather this Month was very changeable; alternately cloudy, clear, cold, and warm; with ſome ſharp froſts, and frequent rains, attended with high winds. The wind for the moſt part blew from the N. W,

N. W. S. W. and N. E. On the 10th, the Thermometer was at 8°, and on the 24th at 40°, which were its higheſt and loweſt ſtations this month."

DISEASES

Most prevalent, were the ſame as in January. The pleuriſy, and other inflammatory complaints, were alſo met with in different parts of the city.

Meteorological Table for March.

	Thermometer.		Barometer.		Wind.	Weather.
Days.	7 A. M. &	3 P. M.				
1ſt.	30°	40°	30° 3′	30° 2′	N. E.	ſnow & rain.
10th.	18°	28°	30° 5′	30° 5′	W.	clear & cold.
20th.	33°	49°	30° 6′	30° 4′	S. E. S.	clear.
30th.	48°	46°	30° 3′	30° 2′	N. E. W.	clear.

"A greater proportion of clear and moderate weather occured this month than uſual at this ſeaſon of the year. But on the 4th, the Mercury was as low as 4°, which was lower than it had been any time before this Winter. On the 7th, there was a ſtorm of hail and rain, the wind at N. W. and very high. The only conſiderable ſnow this ſeaſon, fell on the 10th of this month, but only remained on the ground three days."

DISEASES.

VARIOUS kinds of inflammatory diſeaſes, and alſo the Meaſles and Hooping Cough, occurred very frequently this month. Several people addicted to the pleaſures of the table, and accuſtomed to a ſedentary inactive manner of living were affected with the Gout. But the Rheumatiſm was more common than any other complaint, eſpecially towards the latter end of the month.

Meteorological Table for APRIL.

THERMOMETER.			BAROMETER.		WIND.	WEATHER.
Days.	7 A. M.	3 P. M.	idem.	idem.		
1ſt.	34° 2′	59°	30° 5′	30° 3′	S. W.	clear, windy.
10th.	50°	68°	29° 7′	29° 5′	N. E.	thund. rain.
20th.	43°	56°	29° 11′	29° 8″	E.	hard rain.
30th.	46°	61°	30° 11′	30°	N. W.	cloudy, windy.

RESULT.

Thermom. { 7th greateſt degree of cold, 33.
4th greateſt degree of heat, 78.

“ THE weather in general this month was clear, cool and pleaſant.” The diſeaſes the ſame as thoſe in March.

Meteorological Table for MAY.

THERMOMETER.			BAROMETER.		WIND.	WEATHER.
Days.	7 A. M.	3 P. M.				
1ſt.	45° 5′	65° 7′	30° 3′	30° 2′	S. W.	clear, cloudy.
10th.	50°	82° 6′	30° 4′	30° 2′	S. W.	idem.
20th.	53° 4′	66° 9′	29° 10′	29° 6′	S. E. S.	rainy, cloudy.
30th.	56° 7′	63° 5′			E.	rainy, &c.

RESULT.

Thermom. { 8th greateſt degree of cold, 41°,
11th greateſt deg. of heat, 90° 5′.

THE greateſt degree of cold in May, 1791, was on the 14th, when it was 45° 9′. The greateſt degree of heat was on the 30th, 91° 6′.

Barom. { 8th greateſt elevation, 30° 6′.
21ſt leaſt elevation, 29° 6′.

PREVAILING winds were from N. W. and S. W.

"THIS month was very dry, clear, calm and pleaſant."

THE DISEASES

OF this month were very few. The Small Pox, by Inoculation, was very general and ſucceſsful.

Meteorological Table for JUNE.

THERMOMETER.			BAROMETER.	WIND.	WEATHER.
Days.	7 A.M.	3 P.M.			
1ſt.	65°	81°	30°	W.	clear.
10th.	59°	63°	29° 8′	N. E.	rainy.
20th.	54°	81°		W. N. W.	clear, windy.
30th.	66°	79°		W.	cloudy.

R E S U L T.

Thermom. { 3d greateſt degree of cold, 54°,
17th greateſt degree of heat, 92°.

WIND S. W. and W.

J U N E, 1791.

Thermom. { 21ſt greateſt degree of cold, 58°,
9th greateſt degree of heat, 94°,

Very few diſeaſes prevailed this month; but in the ſame month of the year 1791, inflammatory diſeaſes were very frequent; eſpecially Rheumatiſm, Cynanche Tonſillaris, or inflammatory Quinſy, and Pleuriſy; ſeveral were affected with Cholera and Diarrhea, in conſequence of a ſudden change from hot to cold weather, which took place the latter end of this month; the wind having ſhifted ſuddenly from the South to the N. W. after a thunder guſt.

Such are the various and even oppoſite effects produced by the ſame exciting cauſe when it operates upon different conſtitutions, or according to the nature of the Diatheſis preſent in the ſyſtem.

Meteorological Table for July.

	Thermometer.		Barometer.	Wind.	Weather.
Days.	7 A. M.	3 P. M.			
1ſt.	63° 5′	78° 8′	29° 11′	W.	cloudy.
10th.	61° 2′	79° 2′	30° 8′	W.S.W.	idem.
20th.	65° 8′	79° 9′	29° 10′	N.W.	idem.
30th.	63° 5′	86°	30° 10′	S.W.	fair, cloudy.

RESULT.

Thermom. { 24th greateſt deg. of heat, 90° 5′,
12th greateſt deg. of cold, 54° 5′.

WIND W. and S. W.

ON the 23d, 24th and 25th of July, 1791, the Thermometer was from 93° to 95°, at two o'clock, P. M.

" SCARCE any rain fell this month, except a few ſlight ſhowers; there was very little thunder and lightning, which was conſidered as very extraordinary."

" WHEN the Barometer is low, it always indicates ſtorms or falling weather."

DISEASES.

DIARRHÆAS and Choleras were epidemic the latter end of this month, eſpecially among children. This is the caſe about the ſame time every year, according as the extreme heats ſet in ſooner or later.

THE Cholera generally came on in the

night time, or after a change from very hot to conſiderably cooler weather, whereby a ſudden check was given to the perſpiration, and the nervous ſyſtem amazingly debilitated.

A FEW drops of Laudanum, in a Peppermint or Cinnamon Julep, frequently repeated; ſpirituous fomentations to the abdomen, applied very warm, and the application of heated Flannels to the extremities, ſcarce ever failed of curing the Cholera; having firſt favored the evacuation of the bilious matter from the ſtomach, by frequent draughts of Camomile Tea, or Coffee made of toaſted Oatmeal.

THE Diarrhæa (if indubitable ſigns of laxity and debility are preſent) can only be cured by tonics, ſpirituous drinks, warm cloathing, cleanlineſs, pure air, and moderate exerciſe, with the occaſional uſe of Laudanum, in very ſmall but frequent doſes, and a regimen of very eaſy digeſtion, and of an Alkaline quality.

A STRONG decoction of Peruvian Bark, with the addition of a little powder of Galls and Cinnamon, given in ſmall draughts repeatedly in the day time, and a ſmall doſe of Paregoric Elixir at night, has ſucceeded in numerous caſes after ſtronger aſtringents, Aromatics and Abſorbents, had failed.

A decoction of Rice, Cinnamon, and a little Chalk makes a very ſuitable drink.

WHEN a child has a Fever or a Diarrhæa, the complaint is generally aſcribed to worms, even by thoſe who ought to know better. The ſufferer is therefore compelled to take ſomething to deſtroy Worms, when nine times in ten none exiſt ; or if they do, they are by no means the cauſe of Fever, at leaſt they are never the direct or exciting cauſe. It is true they may irritate perſons of exquiſitely ſenſible and weak Nerves, ſufficiently to induce a Spaſm of the bowels and occaſion Diarrhæa, Colic, and even convulſions ; but it is impoſſible for them to produce a genuine Fever.

SEVERAL caſes of Rheumatiſm, and a few of Pleuriſy, occurred even this month.

Meteorological Table for AUGUST.

THERMOMETER.			BAROMETER.	WIND.	WEATHER.
Days.	7 A. M	2 P. M.			
1ſt.	65° 7′	77° 4′	29° 11′	N. E.	cloudy.
10th.	71° 4′	84° 4′	29° 10′	W.	cloudy, clear.
20th.	61° 2′	75° 9′	30° 2′	N. N. E.	fair.
30th.	68°	83° 7′	29° 11′	N. E.	fair, cloudy.

RESULT.

Thermom. { 14th* greateſt deg. of heat, 92° 7′.
24th greateſt deg. of cold, 58° 5′.

WIND S. W. and N. E.

THE weather, during the greateſt part of this month, was very warm ; and when the wind blew directly from the South, it was almoſt inſufferably oppreſſive ; but when ever it came from a N. W. direction, it was very refreſhing and pleaſant.

DISEASES.

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* AUGUST 15th, 1791. The Thermometer was at 82° at 2 o'clock, P. M. On the 30th, it was 94 ; but fell the day following to 76. The wind ſhifting from South to N. W. after a heavy guſt of rain.

DISEASES.

The acute diſeaſes which occurred this month, were nearly ſimilar to thoſe of the preceding one. In addition to theſe, the Dyſentery became very frequent towards the latter end of the month, at which time the dews were very heavy and chilling.

The following method of treating the Dyſentery, ſcarce ever failed of ſucceſs.

After the patient's ſtomach was cleared out by a mild Puke, and his bowels by a full doſe of Glauber's Salts; he took a paper of the following powder, in a draught of agreeable beverage, every three hours, or if much griped and troubled conſtantly with Teneſmus, every two hours.

Rſ. Pulv. Sal. Glaub, ℥j.
Tart. Emetic, gr. j. m.
f. ch. no. vj. vel viij.

This was continued every day in the ſame manner, as long as the griping or tormina of the bowels and ſcanty mucous ſtools continued, and afterwards occaſionally if the morbid ſymptoms returned.

WHERE this medicine cauſed griping, the Tart. Emet. was omitted, and the powder given without it.

WHEN it became very diſagreeable to the patient, Caſtor Oil, or Cream Tart. with a ſmall quantity of Tart. Emet. was ſubſtituted.

FROM one to two grains of Opium, or a proportionable quantity of Laudanum, was alſo given to an adult every night, from the time of taking the firſt purge till cured.

WHEN the patient's ſtrength was not greatly impaired, he was confined to mild cooling drinks, acidulated with Lemon Juice, or ſyrup of Tamarinds; and his diet was Spoon Meats without Wine or Spices, and all the ripe and juicy Fruits of the ſeaſon. Sweet Milk and Butter Milk were alſo allowed; but when the ſtrength was conſiderably impaired, Wine-Whey, and Sangree were allowed for common drink, and Panada or Tapioca, with Wine and Nutmeg, for food, &c.

When the griping was very diſtreſſing, and the rectum appeared excoriated, Gliſters of Barley Water and Gum Arabic were occaſionally injected, to which were frequently added a few drops of Laudanum. The Abdomen was alſo ſometimes fomented with Flannels, wrung out of a bitter decoction, as hot as could be borne, and afterwards rubbed with warm Laudanum, and ſpirits of Camphor, or Camphorated Oil and Laudanum.

As ſoon as the griping was removed, a decoction of Cortex Peruv. with eight or ten drops of Elixir Vitrioli, was adminiſtered four or five times a day, a more liberal uſe of Wine directed, and an Anodyne continued at night. To prevent a relapſe, exerciſe, and a Flannel Veſt, &c. with other warm cloathing, were recommended.

This, and this alone, is the only certain and ſucceſsful method of treating the Dyſentery, when it is an Idiopathic diſeaſe. I never ſaw a caſe where Bliſters were of any real ſervice, except when the diſeaſe was only ſymptomatic, or combined with the Intermitting or Remitting Fever, which is ſeldom or never the caſe in Philadelphia.

The method of treating this diſeaſe by diffuſible ſtimulants and a cordial diet, recommended by the late Dr. Brown, and by the ſweating proceſs, recommended by Dr. Moſely, in his Treatiſe on Tropical Diſeaſes, I have ſeen prove injurious in ſeveral inſtances, and believe they can ſeldom or ever ſucceed.

Two caſes of Peripneumony came under my obſervation this month. The one was a man 56 years of age; he was attacked with the diſeaſe, a ſhort time after leaving off a

Flannel Shirt, which he had worn all the preceding ſeaſon. The other was a delicate woman, the mother of ſeveral children, who appeared much diſpoſed to Phthiſis Pulmonalis. The diſeaſe was occaſioned with her, by ſitting a conſiderable time in a cool Spring-Houſe, when much heated and fatigued.

The man died, owing, I believe, to the delay of his friends in making application for his relief. His Thorax was opened, and an abſceſs diſcovered in the right Lobe of the Lungs, and marks of Gangrene in the Pleura, in conſequence of the high inflammation with which it had been affected early in the diſeaſe.

The woman was blooded four times, by which ſhe loſt 36 ounces of blood—was put upon the Antiphlogiſtic Regimen, purged moderately for two or three days with Salts and Tartar Emetic; and after the ſecond bleeding, had a large Bliſter Plaſter applied over the affected part.

In every caſe of Pleuriſy, the patient ſhould be blooded every day, more or leſs, according to the violence of the Pain, Fever and ſtrength of the Pulſe, and where thoſe ſymptoms are very violent, twice a-day (without regard to the ſtate of the expectoration), as well as freely purged, till the Fever, Pain and fulneſs of the Pulſe be all conſiderably reduced. The patient ſhould at the ſame time ſtrictly obſerve the Antiphlogiſtic Regimen—Have his chamber conſtantly refreſhed with cooler air than would be agreeable in time of health, if the ſeaſon will admit, and not be oppreſſed with bedcloaths—His bed and body linen daily ſhifted—All his drinks ſhould be taken about the temperature of Spring Water, or at moſt not warmer than a Toaſt will make it.

Blistering is always found moſt ſerviceable after copious bleeding.

When the Pulſe is reduced, the Pain and Dyſpnea abated, and the Fever moderate, one of the following Powders, taken in

Barley Water or Flaxſeed Tea, acidulated with Lime Juice, and repeated every two or three hours, generally finiſhes the cure.

Rſ. Pulv. Sal. Nitri vel Crem. Tart, ʒiij.
Tart. Emetic, gr. j. m.
f. Chart. no. vj.

In caſes where the Pulſe ſinks, and conſiderable proſtration of ſtrength comes on, inſtead of the above Powders and the cooling drinks, a few grains of Volatile Alkali and Wine-Whey, or heating Aromatic Teas ſhould be ſubſtituted; and Bliſters applied to different parts of the body.

Meteorological Table for SEPTEMBER.

THERMOMETER.			BAROMETER.	WIND.	WEATHER.
Days.	7 A. M.	2 P. M.			
1ſt.	63° 5′	75° 9′	30° 2′	S.S.E.S.W.	cloudy.
10th.	65° 7′	83° 7′	30°	S. W.	foggy, fair.
20th.	54° 5′	71° 4′	30° 2′	N. N. E.	fair, cloudy.
30th.	61° 9′	68°	29° 11′	N. E. W.	rainy, cloudy.

RESULT.

Thermom. { 11th greateſt deg. of heat, 88° 2′.
{ 24th leaſt deg. of do. 45° 5′.

WIND S. W. and N. W.

"THIS month was dry and cool; the mornings generally foggy. The dews which fell in the evenings and during the night, were very copious, and in a great meaſure made up for the deficiency of rain."

THE frequent changes in the temperature of the air, particularly from extreme heat to extraordinary cold, gave riſe to a great variety of diſeaſes of a very different nature; but the uſual epidemic of the ſeaſon, the Bilious Remitting Fever, as it is called, was by far the moſt common.

I SHALL here take the opportunity of giving a deſcription of the ſymptoms of this diſeaſe, and of making public the remedies and method of treatment which I have found moſt certain and ſucceſsful.

THE Bilious Remitting Fever, which is more or leſs epidemic at Philadelphia every year in Autumn, begins with a ſenſe of general debility; wearineſs, and pain in the back and loins; giddineſs of the head, loſs of appetite; inclination to Puke; chillineſs, ſucceeded by fluſhes of heat; diſtention of Stomach; ſome perceptible uneaſineſs in reſpiration; quick ſmall irregular Pulſe.

These ſymptoms generally continue three or four days, and ſometimes longer, before the patient is confined to bed. After that, the Feveriſh ſymptoms become conſiderable in the afternoon, but always remit more or leſs before morning. With the remiſſion, the ſkin, which during the Paroxiſm was dry and hot, becomes moiſt and cooler; but ſtill ſome quickneſs and irregularity continue in the Pulſe, ſome Thirſt, and other ſlight ſymptoms of Fever.

The Paroxiſm returns commonly about noon or ſoon after, without any chill or ſhaking, but is often preceded with a diſagreeable and diſtreſſing ſenſe of cold and anxiety about the Precordia, which gradually ſubſide when the Paroxiſm is completely formed. While the Paroxiſm is forming, a diſtreſſing and violent puking often comes on, and ſometimes a very weakening Diarrhæa. The matter evacuated is commonly mixed with bile, and is ſometimes very green and corroſive.

THE Tongue is covered from the beginning with a whitiſh mucus, which in the courſe of the diſeaſe, if the ſymptoms of general debility continue to increaſe, and the remiſſions become more indiſtinct, as is often the caſe, becomes dry and hard, and of a dark brown colour--a dark coloured ſordes alſo gathers about the teeth and gums.

IN this manner the Fever generally continues, with an increaſe of the ſymptoms in the afternoon and great part of the night, with a remiſſion or abatement of the ſame in the morning, till in a longer or ſhorter period, it ends either in complete and diſtinct intermiſſions, or degenerates into a continued form.

WHEN it degenerates into the continued form, it reſembles the Typhus or Putrid Fever in all its ſymptoms, but differs from it eſſentially in not being contagious.

Many Phyſicians from having obſerved the extraordinary quantity of bile diſcharged by patients with this Fever, have been led into a notion that a depraved ſtate of this fluid is the cauſe of the Fever—But by whatever means vomiting is excited, if often repeated with violent ſtrainings, it has a powerful effect in emulging and emptying the biliary ducts, and commonly forces out a great deal of bile. This will neceſſarily be the caſe in Remitting and Intermitting Fevers; for in conſequence of the debility induced by the remote cauſes (which are ſuppoſed to be Marſh Miaſmata, and a long continued courſe of great heat), eſpecially during the cold or forming ſtage of theſe Fevers, the blood is thrown in greater quantity and velocity into the veſſels of the internal Viſcera, becauſe it there meets with leſs reſiſtance than at the ſurface of the body, and among the reſt into the Vena Portæ, in conſequence of which a greater quantity than ordinary of bile is ſecreted and effuſed into the Veſſica Fellis, and Duodenum, &c.

REMOTE CAUSES.

From the Situation and Seaſon in which this Fever prevails; from the manner in which it begins; from the ſubjects moſt liable to it; from its terminating ſo generally in an Intermittent, &c. I am convinced that it is produced by the very ſame occaſional or exciting cauſe as the Intermitting Fever, and that this exciting cauſe is Marſh Miaſmata. The principal difference between Intermittents and Remittents, appears to conſiſt in the Conſtitution or Diatheſis preſent, upon which the occaſional cauſe operates; in other words, the difference in the ſymptoms of the Intermitting and the Remitting Fever, is owing to the difference of Diatheſis, tone, and vigour of the Solids, particularly of the Muſcular Fibres of the ſyſtem. This is analogous to what happens in other circumſtances—Expoſure to cold in Winter, when the conſtitution is moſt firm and vigorous, occaſions Rheumatiſm or Pleuriſy—In Summer, expoſure to cold produces Catarrh or Diarrhæa.

THE circumſtances preceding and accompanying Cholera, furniſh ſufficient proof that it does not depend upon the ſame cauſes as Fever.

THE ſubjects of this Fever have for the moſt part been greatly relaxed by the long protracted heat of the preceding Summer. Every thing elſe that debilitates the Nervous Syſtem, may be conſidered as a prediſpoſing cauſe.

THE obſervations of Phyſicians well qualified for the enquiry, made in different regions of the earth, have proved beyond controverſy, that exhalations iſſuing from moiſt and marſhy grounds, which are now called Miaſmata, are the principal cauſe in the production of Intermittents and Remittents.

THESE appear to operate, by inducing a debility in the nervous ſyſtem, diminiſhing the energy of the brain, and all the functions of the body depending thereon.

PROXIMATE CAUSE.

THIS appears to be a ſtate of debility more predominant in the Nervous, than the Vaſcular ſyſtem.

THAT ſuch a diſtinction really exiſts, is evident from the debility which prevails in all the functions during the forming ſtage, even of inflammatory diſeaſes.

THE Spaſm aſſigned by Dr. Cullen, is now generally known to want ſupport—Dr. Brown, by making no diſtinction between the ſeparate conditions and powers of the human body, and by confounding ſenſibility with irritability, has been guilty of a much groſſer error, and one which has had pernicious effects in practice.

Of the Cure of the REMITTING FEVER.

THE indications of cure in this Fever, as well as in every other whoſe predominant ſymptoms flow from a ſtate of Muſcular debility, conſiſt ſimply in reſtoring power and energy to the Nervous ſyſtem.

THIS we are taught by that ſureſt guide, experience, is beſt accompliſhed by the application of certain ſtimulating and tonic powers, adjuſted as near as poſſible to the ſtate of debility preſent: for we know of no antidote to theſe Miaſmata, which are ſo poiſonous to the ſource of life.

IF the ſpontaneous vomiting has not evacuated the ſtomach ſufficiently, from 10 to 30 grains of Ipecacuana, or a ſmall doſe of Tart. Emetic, ſhould be given in the evening, its operation promoted by warm water or Camomile Tea, and an Anodyne given after its operation, the feet having been previouſly bathed in warm water.

If called early in the complaint, Bliſters ſhould alſo be applied to the Wriſts as ſoon as the Anodyne is taken--By theſe means an intermiſſion is very frequently produced; when the exhibition of the Bark in Wine, next day, commonly prevents a return of Fever.

From 20 to 30 drops of Laudanum, or from one to two grains of ſolid Opium, is the proper quantity to be given at a doſe.

Weak warm Punch, Wine-whey, or Sangree, will be proper after the Anodyne; and, if the Feveriſh Symptoms are not high, will be proper through the whole courſe of the Diſeaſe. Snake-root Tea, has alſo been found a very uſeful drink, particularly during the Paroxiſm--In the remiſſion, it anſwers beſt when joined with a Decoction of the Bark, with the addition of more or leſs Wine, according as the debility manifeſt in the ſeveral functions may indicate.

If the Emetic does not alſo operate by ſtool, or if ſymptoms of debility render the exhibition hazardous, a free evacuation ſhould be procured, by giving the fourth part of an ounce of Glauber's Salts, diſſolved in beverage or Tamarind-water, every three hours, till it has had the deſired effect.

As ſoon as this is accompliſhed, immediate recourſe ſhould be had to the Peruvian Bark, which ſhould be given without reſerve, and in as large quantities as the Stomach will bear, without regard to the preſence or abſence of Fever--except that, during the Paroxiſm or Exacerbation, it ought to be given without Wine, provided the Fever does not appear to be aſſuming a continued form, or is not ſtrongly marked with general debility.

During the remiſſion therefore, let Wine be joined with it, and given liberally; but during the Paroxiſm, let it be given, if in ſubſtance, with Snake-root Tea, or any mild Aromatic infuſion: if it can not be taken in ſubſtance, let two ounces of it, with half an ounce of Serpentar. Virgin. be boiled in two pints of water, to one pint. A wine-glaſs full of the ſtrained liquor, more or leſs, according to circumſtances, with an equal quantity of ſound old Port, or half as much Madeira Wine, to be given every hour during the remiſſion, and the ſame quantity every two hours during the Paroxiſm without the Wine, or with a conſiderably leſs quantity.

If it occaſions either Puking or Diarrhæa, two or three drops of Laudanum, and a little Cinnamon, or ſpirituous Peppermint Water, ſhould be added to every ſecond or third doſe.

When Griping and Sickneſs are very frequent and diſtreſſing, they indicate an accumulation of bilious or mucous matter in the Primæ Viæ, and have often been relieved by a common Gliſter, or the exhibition of a mild laxative. Rhubarb and Cream of Tartar anſwers very well, or a ſmall pill of Calomel or Aloes, taken at bed-time, or early in the morning, without interrupting the exhibition of the Cortex, Vinous Drinks, and Cordial Regimen.

But a Diarrhæa ſhould always be attended to, and diminiſhed, otherwiſe the Patient's ſtrength will be inevitably reduced by it.

If, as ſome times happens, an inceſſant vomiting ſhould come on, heated ſubſtances ſhould be applied to the extremities and ſurface of the body; hot ſpirituous drinks given almoſt continually, with a few drops of Laudanum and Lavender Compound; and Bliſters applied to the Wriſts and Stomach, and Sinapiſms or Rubefacients to the Feet.

If the Stomach rejects the Laudanum as ſoon as ſwallowed, it ſhould be adminiſtered ed in a Gliſter of Camomile Tea or Barley water.

Dr. Blane informs us, that he has put a ſtop to the inceſſant Puking which accompanies the yellow Fever of the Weſt Indies, by the application of Bliſters when Opium failed.

Ten grains of Sal. Tart. mixed with 30 grs. of Cream of Tartar, with a few drops of Laudanum, and a little Eſſence of Peppermint or Cinnamon, taken in a draught of warm water in the act of effervefcence, has often put a ſtop to ſevere vomiting; but unleſs it be ſwallowed while in an effervefcing ſtate, it has no effect. Its good effect therefore ſeems to depend upon the fixed air extricated by this proceſs.

There is a greater probability of putting a ſpeedy termination to this Fever, when the Remiſſion is very diſtinct, though the Paroxiſm may be very violent, than when the Remiſſions are more obſcure, and the Feveriſh Symptoms, during the Paroxiſm, are leſs violent; becauſe the leſs diſtinct and perfect the Remiſſion, the greater is the debility preſent in the whole ſyſtem, in the Vaſcular, as well as in the Nervous.

DR. CULLEN has aſcertained in a very ſatisfactory manner, that the hot ſtage of Fevers, almoſt always correſponds with the preceding cold ſtage; and that when a Fever commences with a ſudden and violent cold ſtage, and is ſoon after ſucceeded by a hot ſtage, it is a certain proof that the Syſtem, and eſpecially the Heart and Arteries are but little, if any, impaired in reſpect to vigour and activity. He has alſo aſcertained, that when the Paroxiſm of any Fever is preceded by little, or no cold ſtage, and the more it reſembles the continued form, the greater the debility.

THE cauſe of the Remitting Fever, certainly operates more powerfully on the Nervous Syſtem than on the Vaſcular, otherwiſe the great activity which is often obſervable in the Pulſe, during the hot ſtage, could not take place.

THE advantage of cleanlineſs and pure air in Fevers, is now too generally acknowledged to require inſiſting on here.

WHEN the debility is very great, and the circulation very languid, the patient's limbs ſhould be wrapped up in heated woollen cloths, occaſionally repeated.

BUT when the ſkin feels preternaturally hot, and the patient much exhauſted, waſhing his body with cold Spirits of Wine or Brandy, always affords grateful refreſhment, and renders it cooler.

WHEN this Fever degenerates into a continued form, with great proſtration of ſtrength, foul and parched Tongue, and a collection of filthy, dark-coloured mucus about the Teeth and Gums, and reſembles the Typhus, or Putrid and Contagious Fever (which ariſes from a vitiated ſtate of human effluvia,) in all its ſymptoms—The ſame plan of treatment ſhould ſtill be purſued; with only this difference, that the Bark and Wine muſt now be given in larger quantity, and continued day and night.

A Bolus containing five or ſix grains of Volatile Salts, may alſo be given every two or three hours, and Rubefacients may be frequently applied to the limbs; but Bliſters ſeldom produce any good effect in the low ſtate of either this Fever or the Typhus.

During the Convaleſcent State, the patient ſhould guard againſt expoſure to cold damp air, and ſhould make uſe of Huxham's Tincture of the Bark, ſeveral times a-day, either mixed with Wine or Water, till his digeſtive powers are perfectly reſtored.

The forming ſtage of moſt diſeaſes reſemble each other ſo much in the greateſt number of Symptoms, that it is difficult to diſtinguiſh one from another at their commencement.

I recollect a caſe of Hepatitis that occurred this month, which began with ſymtoms reſembling thoſe of the Remitting Fever.

The Diſeaſe commenced with a diſtreſſing ſenſation of cold, accompanied with frequent puking and great proſtration of ſtrength; theſe were in a few hours ſucceeded by high Fever and pain in the region of the Liver. After opening a Vein, all the ſymptoms of debility accompanied with puking again returned.

Deterred by this circumſtance, and the

by the frequent return of puking from repeating the Venæſection, the pain increaſed, and in a few days terminated in an Abſceſs. This at length diſcharged itſelf gradually by the Inteſtines; and though the patient was reduced to the loweſt extremity of life, he afterwards recovered, and at preſent enjoys a good ſtate of health. The quantity of Laudanum which this patient took after the Abſceſs began to diſcharge, in order to reſtrain puking, and the quantity of ſtrong Brandy Toddy which he took to preſerve his ſtrength would be ſcarcely credited if I was to ſpecify it.

Dr. Wister, who was conſulted on the caſe, can bear witneſs that he took ten drops of the beſt Thebaic Tincture four times a-day, and from 60 to 80 drops in the courſe of the night, for ſix weeks; great part of which time we expected, at our morning viſits, to find him dead, to ſuch a low ebb and diſtreſſing ſituation was he reduced: But, contrary to our expectations, his appetite gradually returned; the evacuation was no more perceived; his Hectic ceaſed; and health returned, after five months confinement to bed.

The reaſon he was allowed diſtilled Spirits was, becauſe his Stomach would not retain Wine: Even diſtilled Spirits was rejected, except when taken in water almoſt ſcalding hot.

In the Autumn of 1781 and 1782, I believe, to ſpeak within bounds, more than one-half of the children, between the age of ſix and eighteen months, in Southwark, died of the Cholera Morbus, Diarrhœa, and Remitting Fever.

Of late years, the mortality has not been ſo great, owing, I preſume, to their being better ſupplied with cloathing and wholeſome food, and to the greater regard which has been by all ranks paid to Cleanlineſs, in conſequence of the greater proſperity which they have experienced, ſince the reſtoration and increaſe of Trade; and, in a great meaſure, to the Phyſicians of the Diſpenſary, who have the charge of all the poorer claſſes, many hundreds of which would periſh annually for want of adequate aſſiſtance, if it was not for that charitable and very uſeful Inſtitution. Before that Inſtitution was eſtabliſhed, multitudes fell a ſacrifice to the ignorance and villainy of Quacks and Noſtrum-mongers.

THE arching of the Dock, and the cultivation of the Lots around the City, which were formerly waſte Commons, and many of them covered with ſtagnant water, has alſo removed a conſiderable ſource of Diſeaſe from the City and its vicinity.

Nor is it unreaſonable to ſuppoſe, that the improved ſtate of Phyſic, has had ſome ſhare in retarding the progreſs of Mortality.

It is to the labours and ſagacity of the immortal Cullen, that the world is indebted for the principal improvements which have been made in the treatment of Diſeaſes.

For although he has dealt rather liberally in Hypotheſis, all his practical Rules are ſupported by experience.

Meteorological Table for October.

	Thermometer.		Barometer.	Wind.	Weather.
Days.	7 A. M.	2 P. M.			
1ſt.	53° 4′	68° 7′	30° 2′	N. W. W	fair, cloudy.
10th.	42° 2′	43° 2′	29° 11′	N. N. E.	rain.
20th.	45° 9′	60° 3′	30° 2′	N. N. E.	cloudy.
30th.	54 1′	60° 1′	29° 1′		

RESULT.

RESULT.

Thermom. { 4th greateſt deg. of heat, 78° 1′,
27th greateſt deg. of cold, 34° 2′. }

WIND W. and S. W.

THE Weather was dry and cool the greateſt part of this Month, as there were only eight days on which any Rain fell; and that was in ſmall quantities, and at conſiderable intervals.

THE changes in the temperature of the air, were often very conſiderable and ſudden.

FROST, which was firſt obſerved in the City and Suburbs on the 24th of September, became very ſevere, and rendered Fires conſtantly agreeable.

DISEASES this Month were ſimilar to

thoſe in September, with the addition of Hepatic Affections.

These laſt generally required and were relieved by bleeding and purging with Calomel; when obſtinate, a repetition of bleeding was often found neceſſary, and ſometimes the application of a Bliſter.

Great numbers of children were inoculated this month, but in general the diſeaſe was not ſo favourable as it had been the preceding Spring, owing perhaps to the relaxed ſtate of the Solids, in conſequence of the preceding heat of the Summer—With ſome it became Confluent.

When called to a patient previous to, or at the commencement of the eruption in the natural way, I always adviſed him to be kept out of bed in the day time, and to be covered very lightly in the night, expoſing him to a greater degree of cold than would be ſafe in a ſtate of health, and inſiſted upon keeping his Bowels very free with Saline Laxatives, till the end of the ſixth day from the firſt commencement of the ſymptoms; after which I directed a mild Anodyne every night with a Laxative occaſionally, if Coſtive—By this method many were apparently preſerved from having the diſeaſe in a ſevere manner.

In caſes of Convulſion, I permitted the feet to be bathed in warm-water, avoided expoſure to cold, and gave Laudanum in Gliſters when the patient could not ſwallow, till the Convulſions ceaſed, and the Fever began to riſe; after which I gradually admitted expoſure to cooler Air, allowed cool Drinks and mild Laxatives, and if the Fever became very violent, directed the patient to be carried abroad into the open air, &c.

When the Symptoms of debility were great, the Puſtles flat and pale, I always gave a little Calomel, joined with an Anodyne, at bed-time, and a ſtrong decoction of the Bark and Serpentaria, with Wine, in the day-time.

In moſt caſes I found the Bark and Wine ſerviceable from the 11th to the 17th day.

For about the 11th day, even in the Diſtinct ſort, if the Puſtles are numerous, the ſwelling of the face begins to ſubſide and the ſtrength to decline.

When the hands and feet were much ſwelled, I endeavoured to promote Urine by Diuretics, at the ſame time that I endeavoured to ſupport the ſtrength by Wine and Bark and a Cordial Regimen.

Without attention is paid to this circumſtance, the feveriſh Symptoms generally become very violent and often fatal.

I have found Nitre diſſolved in Beverage, when given in ſmall Doſes, anſwer very well—When a Diarrhœa ſupervened about this period, and manifeſtly weakened the Patient, I always endeavoured to check it, by giving three or four drops of Thebaic Tincture, frequently in a ſpirituous Julep—but not otherwiſe.

WHEN the Pock is dry, and formed into a cruſt, a Hectic Fever is often the conſequence, owing to debility, and the obſtruction of perſpiration: Here ſmall doſes of Volatiles, with the Bark and Serpentaria, the Warm-Bath and Flannel Cloathings, by reſtoring ſtrength and perſpiration, generally effect a cure.

WHEN a Pregnant Woman takes the Small Pox in the natural way, Abortion is generally the conſequence. The late Dr. Bond uſed to ſay, that this was always the caſe; but I have, however, ſeen inſtances to the contrary. But the frequency of its occurrence, ought to make us decline inoculating women in that condition. Does the mother's having

ing the Small-Pox when pregnant, prevent her child from receiving the infection after its birth?

Meteorological Table for NOVEMBER.

	THERMOMETER.		BAROMETER.		WIND.	WEATHER.
Days.	8 A. M.	2 P. M.	3 A. M.	2 P. M.		
1ſt.	46°	58°	30° 2′		W. N. W.	foggy, rain.
10th.	37°	48°	30°		W. S. W.	fair c. rain.
20th.	41°	52°	30° 3′		N. W.	fair.
30th.	30°	40°			W. N. W.	fair.

R E S U L T.

Thermom. { 2d* greateſt deg. of heat, 36° 5.
26th greateſt deg. of cold, 27° 5.

WIND. W. N. W. N. W. W. & N. E.

"MANY days in this month were very pleaſant and agreeable; but the greateſt part of the Weather was cold, changeable and wet, with very variable winds—On the 26th, there

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* Alterations in the height of the Mercury in the Barometer do not precede, but always ſucceed, changes in the Weather.

there was a fall of ſnow for the firſt time this month."

DISEASES.

Most of the Diſeaſes which occurred this month, were of an Inflammatory nature, owing to the coldneſs and variableneſs of the Weather.

Rheumatic and Catarrhal affections were the moſt common; and the generality of thoſe who had been ſubject to the Gout, were again viſited by that foe to repoſe.

As Rheumatiſm is a very common and a very diſtreſſing complaint in this country, particularly in Philadelphia, I hope the following deſcription, and method of treatment, founded on obſervation and experience, will not be unacceptable or uſeleſs.

This Diſeaſe is particularly diſtinguiſhed by Pains affecting the larger Joints. It begins with the common Symptoms of Fever; and as ſoon as the Hot Stage is formed, is generally attended with a ſtrong, full, and hard Pulſe.

THE Pain ſeldom continues long in the ſame Joint; but ſhifts in a ſurpriſing manner from one to another—The Pain and Fever is always worſt in the evening and night, owing in ſome meaſure to the heat of the bed and covering.

THIS Diſeaſe differs from the generality of Inflammatory Diſeaſes in this, that it is not apt to terminate in Suppuration, but effuſions ſometimes are occaſioned by it, of a tranſparent gelatinous Fluid, into the tendinous Sheaths.

WHILEVER the Diſeaſe depends upon an Inflammatory Diatheſis, the pained joints are relieved by expoſure to a colder temperature than uſual—When the Inflammatory Diatheſis is removed or exhauſted, the pain is always aggravated by cold, and relieved by heat. By due attention to theſe circumſtances and the ſtate of the Fever, we may always aſcertain when the Diſeaſe is in an Acute, and when in a Chronic State.

THIS Diſeaſe is generally occaſioned by expoſure to cold and damp Air, after the body has been heated by fatiguing exerciſe, &c.

THE Proximate cauſe of this Diſeaſe, appears to be an Atony in the extreme Veſſels, particularly of the Joints, while at the ſame time the reſt of the Syſtem is in a ſtate of increaſed tone and excitement.

I ſuppoſe, with Dr. Cullen, that the application of cold, eſpecially when combined with moiſture, is the moſt common occaſional or exciting cauſe of Rheumatiſm; and that it produces its ſedative and debilitating effects, more particularly upon the veſſels of the Joints, from their being more looſely and imperfectly covered by a cellular texture, than the intermediate parts of the Limbs.

THE indications of cure are, to reſtore a due balance and adjuſtment between the affected Veſſels and the reſt of the Syſtem.

C U R E.

BLOOD ſhould be drawn every day, in a larger or ſmaller quantity, proportioned to the ſtrength and fulneſs of the Pulſe, and acuteneſs of the Pain; and the Bowels kept very Laxative with Saline Purges, till the Pain and Fever are reduced.

WHEN the acuteneſs of the Pain renders Purging inconvenient, the following powder may be uſed with advantage.

R. Pulv. Nitri ʒiij. Tart. Emet.
Gr. i. m. f. ch. n°. vj.

One to be taken in Barley-Water, or Beverage, every two hours—or *Rſ.* Sal. Tart. ʒi. Succ. Limon ℥iſs.

m. cui, ad. Vin. Antim. ʒij.
aq. com. ℥4. m. f. Jul.
Coch mag. ſecunda quaq. hor. ſumend.

The admiſſion of cold Air, and the uſe of cool ſubacid liquors are found beneficial: But every thing heating or ſtimulating, aggravates the Pain and Fever—Even Opium, always aggravates the Diſeaſe, while any Inflammatory Symptoms continue.

In the Chronic Rheumatiſm the plan of treatment muſt be reverſed. Here ten grains of Gum Guiacum, rubbed with a little Cream of Tartar and Loaf Sugar, and given in any agreeable vehicle, three or four times a-day, and a Sudorific Anodyne at night, generally affords relief. Warm flannel cloth, ſhould be worn about the affected limbs; and when only weakneſs remains, they may be rubbed with the Oil of Amber or Tincture of Cantharides.

THE Cortex and Serpentaria, with the moderate uſe of Wine, and a Cordial Regimen, will all be proper to reinſtate the Patient's health.

THE application of Bliſters to the Joints, have often beneficial effects in the Acute Rheumatiſm; but in chronic caſes, I have ſeen better and more expeditious effects, when the pains were fixed, by rubbing Mercurial Ointment very liberally upon the affected parts, and giving the ſimple Mercurial Pill, agreeable to the advice of Dr. Clark, till the mouth began to be affected. The application of Vitriolic Æther to ſwelled Joints, eſpecially when Oedematous, has alſo been found ſerviceable.

THE Cold Bath has alſo often been employed with advantage under the laſt mentioned circumſtances.

It certainly is an invigorating remedy, when the powers of the ſyſtem are not too much reduced to admit of re-action.

Meteorological Table for DECEMBER.

Thermometer.			Barometer.	Wind.	Weather.
Days.	8 A.M.	2 P.M.			clear.
1ſt.	24° 6′	35° 2′	30° 5′	S. W.	cloudy, fog-
10th.	26°	40° 1′	29° 11′	N. E.	gy, rain.
20th.	22°	38°	29° 6′	S. W.	cloudy.
30th.	12°	21°	30° 2′	N. W. N.	clear.

RESULT.*

Thermom. { 12, greateſt deg. of heat, 43° 2′.
{ 19, leaſt deg. of heat, 6° 5′.

WIND S. W. N. E.

"THE weather in general this month,

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* The Mercury in the Baromer fell with the S. and S. W. Winds, and roſe with the N. and N. W.

was colder, more variable, and more diſagreeable than it had been for ſeveral years."

High and boiſterous Winds prevailed the greateſt part of the month.

On the 8th, the River Delaware was firmly frozen over; but was opened on the 12th, by a conſiderable fall of Rain—It cloſed again on the 18th, and continued ſo the remainder of the month.

The weather was ſtill more ſevere at New-York and Albany.

At Albany, the Mercury is ſaid to have been 10 degrees below 0 in the open Air, which was lower than it had been for four years before.

"At Hartford in Connecticut, it was 7 degrees below 0 on the 19th."

DISEASES.

Almost every kind of Inflammatory Complaint occurred in Philadelphia: But affections of the Lungs, whether in the ſlighter form of Catarrh, or more dangerous one of Peripneumony, were moſt prevalent.

Several caſes of Cynanche Trachealis, or Hives, alſo occurred.

Of the CYNANCHE TRACHEALIS, *or Suffocating* CATARRH, *vulgarly called the* HIVES.

THE diagnoſtic Symptoms of this Diſeaſe are; a hoarſeneſs, with ſome ſhrillneſs and ringing ſound, both in ſpeaking and coughing. At the ſame time, there is a ſenſe of Pain about the Larynx; ſome difficulty of reſpiration, with a whizzing ſound in inſpiration, as if the paſſage of the

Air was ſtraitened—The cough, without exception, in all that I have ſeen, was dry, harſh and ſonorous—Together with theſe Symptoms, there is a frequency of Pulſe, a Reſtleſſneſs, and generally an increaſe of Heat —Neither redneſs nor tumour are perceptible within the Fauces, nor any alteration in the ſize of the Tonſils externally.

WITH the deſcribed Symptoms, and particularly with great difficulty of breathing, and a ſenſe of ſtrangling in the Fauces, the Patient ſome times ſuddenly expires.

THIS Diſeaſe attacks infants at the breaſt leſs frequently than after they are weaned. After this period, the younger they are the more they are liable to it: The frequency of it becomes leſs as children advance in age and vigour; and there are no caſes recorded of children above twelve years of age being affected with it. It very frequently occurs in Philadelphia, both in Autumn and Spring, and even in Winter, among the infants of the

Germans who generally ſit in rooms heated by cloſe ſtoves.

IT often manifeſtly comes on from expoſure to cold and damp Air, after having been previouſly heated or thrown into profuſe perſpiration.

PERHAPS the ſlavering of Saliva, by wetting and chilling the neck, may favour the operation of colder Air.

THE frequency of its commencing with the ordinary Symptoms of a Catarrh, favours this conjecture.

THERE have been many diſſections made of infants who have died of this Diſeaſe; and there has almoſt conſtantly appeared a preternatural Membrane lining the whole internal ſurface of the upper part of the Trachea, and extending in the ſame manner downwards into ſome of its Ramifications. This preternatural Membrane may be eaſily ſeparated, and ſometimes has been found ſeparated in part from the ſubjacent proper Membrane of the Trachea. This laſt is commonly found without any appearance of Corroſion or Ulceration; but it frequently ſhews the veſtiges of Inflammation, and is covered by a matter reſembling Pus.

From the remote cauſes of this Diſeaſe; from the Catarrhal Symptoms commonly attending it; from the Fever conſtantly preſent with it; from the ſame kind of preternatural Membrane being found in the Trachea when the Cynanche Maligna is communicated to it; and from the veſtiges of Inflammation on the Trachea diſcovered upon Diſſection, we muſt conclude, that the Diſeaſe conſiſts in an Inflammatory affection of the Mucous Membrane of the Larynx and Trachea, producing an Exudation analogous to that found on the ſurface of inflamed Viſcera, the thinner parts of which evaporating, and being carried off by the Air in Reſpiration,

piration, leaves the remainder thick, dry, and ſolid.

Though this Diſcaſe manifeſtly conſiſts in an Inflammatory Affection, it does not commonly end either in Suppuration or Gangrene.

The peculiar and troubleſome circumſtance of the Diſeaſe ſeems to conſiſt in a Spaſm of the Muſcles of the Glottis, which by inducing a Suffocation, prevents the common conſequences of Inflammation.

When this Diſeaſe terminates in Health, it appears to be by a reſolution of the Inflammation; by a ceaſing of the Spaſm of the Glottis; by an expectoration of the Matter exuding from the Trachea, and of the cruſts formed there; and frequently it ends only with an Expectoration, reſembling that which attends a ſimple Catarrh.

WHEN it ends fatally, it is by a Suffocation, in conſequence of a Spaſm affecting the Glottis; but ſometimes probably owing to a quantity of Matter filling the Bronchiæ.

As the Diſeaſe has been incontrovertibly proved to be an Inflammatory Affection, the cure at preſent is generally attempted by the ſame means as have been found moſt ſucceſsful in other Inflammatory Affections.

BLEEDING,

BOTH general and topical, has often given immediate relief, when employed early in the Diſeaſe; and by being repeated to a ſecond, and even to a third time, when the difficulty of breathing and heat of the Body were conſiderable, has entirely cured the Diſeaſe.

VOMITING immediately after bleeding has generally a very good effect—For this purpoſe I prefer a ſolution of Tartar Emetic, in Honey and Water, of tepid warmth, in the proportion of three grains to ſix tea-ſpoonfuls of the Honey and Water; of which one tea-ſpoonful may be given every quarter of an hour, till it operates, and the operation promoted with Bran, Linſeed, Mallows, Balm or Hyſop Tea ſweetened with Honey.

If the principal Symptoms are not manifeſtly mitigated after a ſecond bleeding, the operation of an Emetic, and the exhibition of a Laxative Gliſter, (if the Emetic has not alſo proved purgative) a Bliſter Plaſter, guarded with fine Gauze, ſhould be applied without delay on each ſide of the Neck, ſo as to reach from the root of each Ear to the Trachea, and as ſoon as they have produced Veſſications, they are to be removed, and the bliſtered parts dreſſed with Baſilicum, or perhaps ſomething more ſtimulating.

When the Diſeaſe happens to children

debilitated by previous Diſeaſe, blood letting muſt be employed more ſparingly, or perhaps omitted altogether; and our dependence muſt be placed on Emetics, Laxative Gliſters, or purges of Calomel, and the application of Bliſters; obſerving at the ſame time to keep the Patient's body cooler than would be agreeable if in health, and to enjoin the ſtrict obſervance of the Antiphlogiſtic Regimen; which conſiſts in avoiding every ſtimulating impreſſion; ſuch as Heat, Exerciſe, Impatience, Animal Food, Spices, Salt, Butter, Sweet Meats, dried and hard Fruits, diſtilled or fermented Liquors, &c.

A Decoction of Barley and Raiſins, or Oatmeal Gruel, with ripe juicy Fruits, either raw or baked, are the only articles of Diet allowable; and the Liquids already ſpecified, or thoſe of a ſimilar quality, acidulated with Lime Juice, are the moſt ſuitable drinks.

Dr. George Glentworth has done me

the honour to inform me, that he lately cured two children of the Cynanche Trachealis, by putting them into the Warm Bath, when in danger of ſuffocating, immediately after one blood-letting, and the exhibition of a Puke, in the early Stage of the Diſeaſe—The whole of the Bodies of theſe Patients was immerſed in the Bath, and when taken out, they were put to bed between blankets, and a copious perſpiration promoted by warm Beverage or Balm Tea.

I HAVE often adviſed that a veſſel of hot Water ſhould be held under the Patient's chin, for the purpoſe of breathing the vapour iſſuing from it, but never perceived any beneficial effect from it.

PERHAPS when the Diſeaſe has been of ſeveral days continuance, it may aſſiſt in ſoftening and looſening the preternatural Membrane; but I apprehend that the heat it occaſions muſt be injurious in the early

Stage of the Diſeaſe, while the Inflammatory Symptoms are conſiderable.

When every other remedy fails, and the Patient is in immediate danger of ſuffocation, I think Bronchotomy might be tried with propriety. Perhaps life might be reſtored, even after ſuffocation, if the operation was immediately performed, and the Lungs inflated with bellows. If Bronchotomy ſucceeds, it will be neceſſary to keep a ſuitable Canula in the Orifice for the Patient to breath through till the Diſeaſe is removed.

In order to inſure the ſucceſs of the Puke, it ought to be exhibited every fourth or ſixth hour if the ſtrength will permit.

I have alſo ſeen good effects produced by the exhibition of Calomel in large and repeated Doſes; but not ſo uniformly as from the Emetic Solution.

BILLS OF MORTALITY.

In Kalm's Travels, Page 57th, is Recorded the following Account of the Numbers which died Annually in Philadelphia, from the Year 1730 *to* 1750.

Viz. A. D.	1730	222	*A. D.*	1744	410
	1738	250		1745	420
	1739	350		1748	627
	1740	290		1749	758
	1741	345		1750	716
	1742	409			
	1743	425			

From theſe Bills of Mortality, it appears that the Diſeaſes which were then moſt fatal in Philadelphia were Conſumptions, Fevers, Pleuriſies, Hæmorrhagies, Dropſies, and Convulſions.

"The number of inhabitants A. D. 1746, were computed to be about 10,000—In the year 1749, the number of houſes in Philadelphia, was found to be 2076."

A Regiſter of the Births and Deaths of the various Religious Societies in the City of Philadelphia, from the firſt of September 1787, *to the firſt of September* 1788.

Names of the Societies, &c.	BIRTHS.		DEATHS.		TOTAL.	
	Males	*Females*	*Males*	*Females*	*Births*	*Deaths*
Swediſh church	4	3	8	7	7	15
Roman Catholic church	145	123	51	39	268	90
Society of Free Quakers	16	12	7	5	28	12
Chriſt's & St. Peter's chs.	66	90	71	60	156	131
German Reformed ch.	91	90	37	42	181	79
Second Preſbyterian ch.	23	22	16	18	45	34
Society of Friends	178	164	67	74	342	141
St. Paul's church	47	40	12	10	87	22
Third Preſbyterian ch.	67	54	17	11	121	28
Moravian church	5	2	3	1	7	4
German Lutheran ch.	229	200	99	77	429	176
Firſt Preſbyterian church	56	38	25	15	94	40
Jews Synagogue	3	2	1	1	5	2
Scotch Preſbyterian ch.	17	11	9	6	28	15
Baptiſt church	17	13	6	6	30	12
Potter's Field, Whites	125	93	85	39	218	124
Blacks	76	70	46	27	146	73
Total Mumber	1165	1027	560	433	2192	998

☞ The Strangers who have been interred in the Burying Grounds belonging to ſome of the abovementioned Societies, are included in the ſubjoined numbers.

A Regiſter of the Births and Deaths in the various religious Societies in the City of Philadelphia, from September firſt, 1788, *to September firſt,* 1789.

Names of the Societies, &c.	BIRTHS.		DEATH.		TOTAL.	
	Males.	*Females.*	*Males.*	*Females.*	*Births*	*Deaths*
German Lutheran church	216	197	82	77	413	159
German Reformed church	64	61	16	14	123	30
Chriſt's & St. Peter's chs.	81	89	75	79	170	154
St. Paul's church	31	37	14	24	68	38
Society of Friends	151	157	58	83	308	141
Roman Catholic church	114	120	37	28	234	65
Firſt Preſbyterian church	27	27	15	20	50	35
Second, ditto	29	26	23	24	55	47
Third, ditto	57	75	29	18	132	87
Scotch, ditto	6	8	8	5	14	13
Society of Free Quakers	11	13	6	5	24	11
Moravian church	3	1	3	4	4	7
Swediſh church	7	6	5	4	13	9
Baptiſt church	15	14	6	7	29	13
Univerſal Baptiſt, ditto	1	2	1	0	3	1
Methodiſt church	23	22	9	11	45	20
Jews Synagogue	1	1	0	0	2	0
Potter's Field, Whites	91	96	89	53	187	142
Blacks	69	74	38	26	143	64
Total Number	993	1026	514	482	2019	996

A Regiſter of the Births and Deaths in the various Religious Societies in the City of Philadelphia, from September firſt, 1789, *to September firſt,* 1790.

Names of the Societies, &c.	BIRTHS		DEATHS.		TOTAL.	
	Males.	*Females.*	*Males.*	*Females.*	*Births.*	*Dths.*
German Lutheran church	219	196	107	96	415	203
German Reformed church	85	73	48	21	158	69
Chriſt's & St. Peter's chs.	79	87	67	69	166	136
St. Paul's church	30	36	16	20	66	36
Society of Friends	153	160	75	79	313	154
Roman Catholic church	127	122	29	38	249	67
Firſt Preſbyterian church	27	31	16	19	58	35
Second, ditto	29	38	26	21	67	47
Third, ditto	59	67	12	13	126	25
Scotch, ditto	18	13	3	2	31	5
Society of Free Quakers	9	12	4	3	21	7
Moravian church	3	4	0	1	7	1
Swediſh church	7	8	6	3	15	9
Baptiſt church	14	16	6	8	30	14
Univerſal, Ditto	2	2	0	1	4	1
Methodiſt church	19	21	10	9	40	19
Jews Synagogue	1	2	2	1	3	3
Potter's Field, whites	94	85	87	49	176	136
Blacks	67	79	35	33	146	68
Total Number	1042	1052	549	486	2094	1035

FROM the three preceding Bills of Mortality, it appears that the number of Births in Philadelphia at preſent, annually, is only a little more than double the number of Deaths.

THE numerous Deaths which occur here, appear to be more owing to the ſudden viciſſitudes of Weather than to any other cauſe; for according to the obſervations of Profeſſor Kalm, (page 104.) "There is hardly a country on earth in which the Weather changes ſo often in a Day as it does here."

IT frequently changes from exceſſive heat to piercing cold in leſs than twenty four hours—Sometimes it changes five or ſix times in the ſame day.

THE following calculations, the reſult of of obſervations for ten years on the London Bills of Mortality, by Mr. Simpſon, with additional remarks by Dr. Foulke: extracted from his Oration on Longevity, delivered before the Philoſophical Society at Philadelphia, are inſerted to ſhew, that the probabilities or chances of enjoying health, and prolonging life, is much greater in the City of Philadelphia, and ſome other parts of the United States, than in any other diſtricts of the World, containing a proportionable number of inhabitants.

By Mr. Sympſon's obſervations, it appears that not one-half of the Perſons born in London live to be three years old; not one-third to be 25; not one-fourth to be 38; not one-ſixth part to be 49; not one-eighth to be 59; and not more than one in 500 of them to be 78.

It appears from the obſervations of Dr. Price, that inſtances of Longevity are not always in proportion to the rareneſs of deaths in the early periods of life.

" In Pais de Vaud in Switzerland, he

ſays only one in 45 dies annually." In London nearly one in 20 and three-fourths dies annually; in Vienna, one in 19½; in Holy Croſs near Shrewſbury in England, one in 33.

In Pais de Vaud one half of the inhabitants live to the age of 41. In a Country Pariſh in Brandenburgh, where the annual Deaths are in the ſame proportion as in Pais de Vaud, one-half the Perſons born do not reach their 26th year—In Holy Croſs one half reach their 27th year—In London and Berlin, ſuch is the melancholy condition of the Inhabitants, that one-half of the children are buried before they are two years and three-fourths old.

"The ravage of Mortality is ſtill more exceſſive at Vienna, where the ſecond is the laſt year of life to half the Perſons born in that City.

Dr. Price proceeds to give us the proportion of thoſe who reach 80 years of age in different places.

“ We ſhall here find apparent contradictions, if we are not prepared to expect inſtances of Longevity in the ſame places, which produce even the largeſt proportion of annual Deaths.

“ For inſtance—Holy Croſs near Shrewſbury, furniſhes a larger proportion of annual Deaths than Pais de Vaud or Brandenburg; but at the laſt place, one perſon in 22½ only reaches 80 years of age; and in Pais de Vaud, 1 only in 21 and a half; whilſt in Holy Croſs, one in 11 is found to reach this venerable period of exiſtence.”

The difficulty and conſequent uncertainty of all political Arithmetic weakens our confidence in calculations of this nature; but if the moſt ingenious in Europe, who have every means of information in their power, are heard with diffidence, what confidence, can we expect to inſpire whoſe ſources of information are as yet ſo ſcanty and imperfect?

fect? "We ſhall, however, venture to draw ſome inferences from ſuch documents and data as we do poſſeſs.

THE expectation of life to an Infant juſt born is 18 years even in London, where early Deaths are more numerous, perhaps, than any where elſe except in Vienna.

ON Dr. Price's principles, the number of annual Births, being multiplied into the expectation of life, ſhould give the number of native Inhabitants; for inſtance, it is ſaid the Births in this City (Philadelphia) laſt year, were 2192, and this number multiplied by 18, the loweſt expectation of life for an infant in Europe, amounts to 39456. But as it has ſince been found, that the number of inhabitants reſiding in the City and ſuburbs of Philadelphia is 42,400, the inference follows (upon a preſumption, that the regiſtry of Births is accurate) that the expectation for the life of every Infant is more than 18 to 1 here.

In all European Cities a calculation on theſe principles gives a reſult confeſſedly ſhort of the real number of inhabitants, and the calculator is obliged to have recourſe to the exceſs of Burials more than Births to account for the difference. But in this country, favourable as it is equally to Population and Longevity, we have even in its largeſt City an exceſs of Births more than of Burials, in the extraordinary proportion of 11 to 5, notwithſtanding ſtrangers who die in Philadelphia are included in the liſt of burials.

By comparing the number of annual Deaths in Philadelphia with the number of Inhabitants, we ſhall find that there is not more than one in 40 dies annually; and if we do not include ſtrangers in the account of the funerals, it will be found that there is not more than one in 50 that dies here.

"From a paragraph in the News-paper, under the New-Haven Head, we find the annual Deaths only in the proportion of 1 in 70 of the whole number of the Inhabitants; a proportion more flattering than any table we have met with, though the limited ſcale of this inſtance, and the corroborating circumſtances cited, leave no room to doubt of its accuracy.

"The learned and ingenious Dr. Samuel Smith of Princetown, (Author of the Influence of Climate, &c. upon the human body) has favoured me with an account of a number of Families in the Jerſey State, by which it appears that of the living four-fifths of them were above 10 years old; more than one-half upwards of 20; two-ſevenths above 30; one-fifth above 40; one-ninth above 50; and one-fourteenth had paſſed, and ſome very conſiderably, the period of 60 years."

"Mr. Wm. Barton's ingenious Letter, preſented at the laſt meeting of the Society, contains many curious particulars, and ſeems calculated to ſupply American data, the Deſideratum of thoſe tables with which other Countries have been furniſhed.

It appears from Mr. Barton's reference to Profeſſor Wiggleſworth, that one Perſon in eight of thoſe buried in Ipſwich Hamlet, in the State of Maſſachuſetts, arrived to the very uncommon Age (in other Countries) of 80 years. " A proportion which muſt remain a monument of Longevity in all probability, only to be paralleled in the future Hiſtory of our own Country."

D. Percival ſays, " in the Pais de Vaud, a diſtrict of the Province of Bern in Switzerland, and in a country Pariſh in Brandenburgh 1 in 45 of the Inhabitants die annually; and at Stoke Damarell in Devonſhire, 1 in 54; whereas in Edinburgh and Vienna, the yearly Mortality appears to be 1 in 20; in London 1 in 21; in Rome and Amſterdam, 1 in 22; in Northampton, 1 in 26; and in Holy Croſs, 1 in 33.

In the Pais de Vaud, the proportion of Inhabitants, who attain the Age of 80, is 1 in 21½; Brandenburgh, 1 in 22½; in Norwich, 1 in 27; in Mancheſter, 1 in 30; in London, 1 in 40; and in Edinburgh, 1 in 42. Theſe facts afford a ſtriking, but melancholy, proof of the unfavourable influence of large towns on the duration of life.

From the moſt accurate computation, London is found to contain 601,750 inhabitants; and from 1759 to 1768, the burials have exceeded the chriſtenings every year upwards of 7000; which is the recruit the Metropolis requires annually from the Country to ſupport the preſent number of its People.

In 1757, a ſurvey was made of Mancheſter and Salford. The number of Inhabitants then amounted to 19839; and the burials, excluſive of thoſe among the Diſſenters, were 778 per annum; but ſince that time the populouſneſs of Mancheſter has conſiderably increaſed. Half of all that are born in that town die under five years of age.

THE Iſland of Madeira, which is ſituated between 32 and 33 degrees N. L. is ſo remarkably healthy, that two-thirds of all that are born in it, live to be married. Autumn is the moſt healthy; Summer the moſt ſickly ſeaſon there.

IN Mancheſter Diſeaſes are moſt frequent and fatal in the Months of January, February, and March; and leaſt ſo in July, Auguſt, and September.

"AT Paris, and in Sweden, it has been obſerved, that Women not only live longer than Men; but that married Women live longer than ſingle Women."

"And in Switzerland it appears, particularly from the calculations of M. Muret, that of equal numbers of ſingle and married Women between the age of 15 and 25, more of the former died than of the latter, in the proportion of two to one."

In the Pariſh of Holy Croſs, Salop, an account was taken by the Vicar, A. D. 1760, of the number of Males and Females, of the Age of 70 and upwards; the latter amounted to 35, the former only to eight.——See *Price on reverſionary payments, and Percival's Eſſays,* Vol. 2d.

From a compariſon of the Bills of Mortality with the number of Inhabitants in the Pariſh of Mancheſter it appears, that whilſt in the town the yearly Mortality is one to 28, in the Pariſh only one in 56 dies annually.

Such a ſtriking diſparity between the

healthineſs of a large town and the Country which ſurrounds it, will ſcarcely be credited by thoſe who have paid no attention to ſuch enquiries.

An ACCOUNT *of the* SITUATION, CLIMATE *and* DISEASES *of the* STATE *of* DELAWARE.

" THIS State, which is only 92 Miles in length and 24 in breadth, is ſituated between 38° 30m. and 40°. North Latitude; and 0° and 1° 45m. Longitude, Weſt from Philadelphia; and bounded North by Pennſylvania; Eaſt by the River and Bay of Delaware; and Weſt by Maryland."

" The Eaſt and South parts of this State are low and flat, and a conſiderable portion in an uncultivated condition, which occaſions the Waters to ſtagnate; in conſequence of which the Inhabitants are very ſubject to Intermittents and Remittents in the latter end of Summer and beginning of Autumn."

In the Northern parts of the State, the Land is more elevated and dry, the Soil fertile, and produces Wheat in large quantities, and all the grains and graſſes common to Pennſylvania.

Dover, the capital of the State, ſtands on a ſmall creek, a few Miles from the River Delaware, and contains about 100 dwelling houſes.

Wilmington, the largeſt Town in the State, is but 28 Miles from Philadelphia, ſituate upon a gentle aſcent of an eminence along Chriſtina Creek, about one and a half Miles from the River Delaware. This

Town, and the country to the North-Weſt of it, is remarkably healthy.

The difference obſerved in the vigour, activity, complexions, and aſpect of the People who inhabit the low flat country and thoſe of the high and dry parts, affords a very ſtrong argument in favour of the opinion of naturaliſts; who aſſert, that the healthineſs or unhealthineſs of any ſituation and climate may be aſcertained from an accurate obſerance of theſe circumſtances, together with the knowledge of the diet, drinks, and occupations of the Inhabitants, with as much certainty as the nature and quality of any Soil may be determined from a knowledge of the ſpecies of timber and other vegetables which grow upon it ſpontaneouſly.

The influence which particular ſituations, Climates, expoſure to the Sun and Wind, Abſtinence, or the occaſional uſe of only ſcanty and indigeſtible Aliment, with an indolent and ſlovenly manner of living, is almoſt incredible: So much ſo, that many Philoſophers have been induced to think, that the ſable blackneſs of the Negro, is owing to a combination of thoſe cauſes. But Anatomy demonſtrates that this depends upon a very different circumſtance; upon a peculiar and original organization and diſpoſition of the rete mucoſum, and is as much conſtitutional as the colour of the Eye.

DR. JAMES TILTON, a Phyſician of talents and experience, reſiding in the Town of Dover, in a Letter to Dr. Redman, Preſident of the College of Phyſicians, dated April 1790, remarks that "However there may be ſomething eſſential and immutable in the nature of all Fevers, yet different conſtitutions of the Atmoſphere may occaſion, of neceſſity, a variety of practice even in Diſeaſes of the ſame name.

HE further obſerves, that, "Before the

war, during the winter, or inflammatory ſeaſon of the year, they treated the Fevers which occured at that place, by repeated bleeding, and the general antiphlogiſtic methods with remarkable ſucceſs; but the ſame method now would be attended with very different effects; the exceptions at leaſt are ſo few as hardly to deſerve mentioning."

"OPIUM, Wine, Bark, Volatile Salts, are the Articles of Materia Medica, we are obliged chiefly to have recourſe to."

"So contrary to the Phlogiſtic, and ſo favourable to the Typhous Diatheſis is the preſent conſtitution of the Atmoſphere, that blood-letting is very ſeldom uſed in the cure of Fever.

DR. TILTON alſo remarks, that the Small-pox, Meaſles and Influenza, though from contagion and a cauſe permanent and immutably the ſame, yet they have not lately borne bleeding as they uſed to do; and very often in the latter Stages of theſe Fevers, the Bark, other Tonics and Cordials, become abſolutely neceſſary.

"THE Fever moſt prevalent with us this Winter and Spring, has uſually attacked with congeſtion in the Lungs, reſembling a Peripneumony; and yet the whole train of Symptoms indicative of Typhous weakneſs, ſuch as Pain of the Head, dry Tongue, foul Mouth, ſick Stomach, attended ſometimes with Vomiting and Purging, ſo regularly enſued, that this Fever may be denominated *Peripneumonia Typhoides*." "Although at the beginning of this Fever a fullneſs of the Pulſe, Pain of the Head, and aching Pains over the whole Body, might induce an incautious Phyſician to employ blood-letting; we have learned from repeated obſervation to withhold the Lancet, or to uſe it in the moſt guarded manner."

COPY *of a* LETTER *from* DOCTOR TILTON.

Dover 20, *April* 1791.

SIR,

IMMEDIATELY after writing my former Letter to you, I was ſeized with an indiſpoſition that totally diſqualified me for writing again ſo ſoon as I intended; and even at this time I cannot attempt more than a very general account of our Diſeaſes.

THE medical Hiſtory of Delaware, I apprehend, is peculiar in this circumſtance, that a greater variety of Soil and Climate is comprehended within a ſmaller extent of Territory than can be found any where elſe. Within the narrow limits of a hundred Miles in length, upon the Delaware River, and the mean diſtance of about twenty-four Miles back into the country, we have all the varieties of Soil and Climate to be found in the middle States of America. That diſtrict of Delaware, which lies above Chriſtiana creek, is perfectly Mountainous both in Soil and Climate; and theſe Mountains extend their influence throughout New-Caſtle county, ſo as to give a diſtinction of climate for every ten miles you deſcend down the Delaware. From Apoquinimink creek to the lower end of the ſtate, we have a level country, interſected at regular diſtances from five to ten miles, with creeks of tide-water, bordered with extenſive marſhes; and theſe creeks head in immenſe ſwamps, on the weſtern border of the ſtate, from whence the water falls, equivocally, either into the Delaware or the Cheſapeake. Throughout this low and flat diſtrict, Marſh Miaſmata and other noxious exhalations, muſt be a plentiful ſource of Diſeaſes. Cape Henlopen, nevertheleſs, enjoys all the advantages of a perfectly inſular ſituation; and all the river ſhore, as well as the ſea coaſt, find great relief from the ſea-breeze; ſo that it is only the inland part of the country, where heat and ſtagnation concur to exalt the noxious exhalations of our low grounds, that our ſtate can truly be ſaid to be ſickly.

From this general deſcription of our ſtate, the following account of the health and diſeaſes of the inhabitants will be readily credited. The hills of Brandywine and Chriſtiana, furniſh as healthful a diſtrict of country as any in America. The Borrough of Wilmington for health, beauty, and accommodation, is ſuperior to any town I have ſeen, between the borders of New-England and the ſouthern boundary of Virginia; and I have examined all the principal towns within thoſe limits, in a comparative point of view. George-Town, on the Potowmac, the intended Federal Reſidence, is more analogous to Wilmington than any other, but manifeſtly the inferior of the two.

The town of New-Caſtle, though ſurrounded by marſhy ſprouts from the Delaware, is nevertheleſs rendered a healthful reſidence, by the refreſhing breezes from the river that flow in upon the town as regularly as the tide. All the county of New-Caſtle, and eſpecially above Apoquinimink, is a delightful diſtrict of country, though the nearer the river the more healthful.

Kent, though bleſſed with the moſt fertile ſoil, is the moſt ſickly of the three counties of Delaware. Dover, the county town, and Metropolis of the State, is truly unhealthful. Situated eight miles within land, and ſhut out from all water communication by high timbered woods, the air of this diſtrict, in the hot ſeaſon of the year, ſuffers exceedingly from ſtagnation.

Sussex county, though as flat and marſhy as Kent, is fanned on one ſide from the Delaware, and on another from the Atlantic, and the woods being cut down in leſs proportion, than in the other counties, the abundance of foreſt trees, pour forth a refreſhment to the air that contributes, with the ſea breezes, to the health of the inhabitants.

Lewes, the county town of Suſſex, ſtands upon the promontory of Cape-Henlopen, that ſtretches in between the Delaware and the Atlantic. This town is conſtantly fanned from the Ocean, and is as healthful as Bermudas. This place has furniſhed the longeſt lived inhabitants of our ſtate. Here are the greateſt proportion of old people, and the moſt numerous ſwarms of children. Lewes is much reſorted to by convaleſcents from the inland country and neighbouring ſtates, and deſerves to be ſtill more frequented. Sickly boys, and others with ſwelled Spleens and obſtructed Viſcera, from repeated and obſtinate Fevers, are quickly reſtored to health, barely by a reſidence at Lewes. All manner of nervous weakneſs is relieved by the ſalutary Air of our Cape; but Aſthmatic and Hectic Patients ſhould be cautious how they truſt themſelves there.

FREQUENT and ſudden changes in the ſenſible qualities of our Atmoſphere furniſh another fertile ſource of Diſeaſes. Theſe changes depend ſolely on the courſe of the winds, and happen as often as the winds change. The wind blowing from between North and Eaſt, is generally cold and moiſt, except from June until September, when it is generally dry. From Eaſt to South comes our ſea breeze, and is more ſalutary than any other. From South to Weſt, the winds are hot, all the year round, and conſtitute our moſt noxious blaſts. From Weſt to North, the wind is at all ſeaſons cold, dry in winter, and accompanied with guſts in ſummer.

THE moſt healthful ſeaſon of our year is from the beginning of May, until the begin-ing of Auguſt. During this period, the weather is leſs variable than at other ſeaſons; and I have conceived, that the rapid progreſs of vegetation, during the Spring contributes not a little to render the Air ſalubrious.

IMMEDIATELY after Harveſt, our endemical ſickneſs begins. It generally increaſes throughout the month of Auguſt, and rages at its height during September.

BILIOUS, Intermitting and Remitting Fevers, differing only in degree and modification, conſtitute the principal group of our annual Fall Diſeaſes. Dyſenteries ſometimes appear, but not oftener than in other countries; and it is remarkable, that Diſeaſes of this kind oftener afflict the higher diſtricts of New-Caſtle, than the flat counties of Kent and Suſſex. The Cholera Morbus is a frequent Diſeaſe in the hot months; and the Cholera Infantum, as deſcribed by Dr. Ruſh, has of late years made great devaſtation among

mong our children, more eſpecially in the town of Dover. A ſwelled Spleen and viſceral obſtructions, are no uncommon conſequence of Fevers. Scorbutic and other putrid affections often make their appearance in unhealthful ſituations: And if our Remitting Fevers of the Fall are neglected or ill treated, they will often degenerate into the moſt perfect Typhus.

WITH the commencement of froſt in October, the Fall Sickneſs abates in quantity, but wears very much the ſame type for a month or ſix weeks longer. The Bilious and Remitting Fevers of the Fall ſeem to lay the foundation of our Winter Fevers: for it is very remarkable, that thoſe who have been the moſt harraſſed by the Endemical Fall Sickneſs, are the moſt liable to the Synochous and Typhous Fever of the Winter. As to a ſimply Inflammatory Fever, in which local Inflammation is ſolely to be regarded, it is with us a rare occurrence indeed.

The proportion of ſickneſs among our inhabitants is as various as the Soil and Climate. In the highlands of New-Caſtle, a man thinks himſelf quite unfortunate to be overtaken by an Epidemic Sickneſs, even in the fall of the year; whereas an inhabitant of the inland diſtricts of Kent and Suſſex thinks himſelf lucky to eſcape a year or two together.

In Wilmington and Lewes, the countenances of the inhabitants never flag, but atall ſeaſons witneſs the moſt vigorous health.

In Dover every inhabitant ſuffers a deminution of health, during the fall ſeaſon, and exhibits a more pale and languid face than at other times.

A prevalency of South-Weſt Winds above all things increaſes and exalts our Fall Sickneſs; but when the Eaſterly Winds prevail, during the ſickly ſeaſon, or frequent ſhowers happen from the North-Weſt, they afford us great relief. Thoſe habitations that border on the water, and are openly ex-expoſed to the ſea breeze, are every where healthy.

Bombayhook, though ſurrounded by immenſe Marſhes, is nevertheleſs, next to Lewes, diſtinguiſhed for the health of its Inhabitants. Theſe ſeveral facts taken together, lead us to conjecture, that Marſh Miaſmata will not altogether account for our Fall Sickneſs, nor the peculiar noxious influence of our South-Weſt Winds, which injure us as manifeſtly by the ſudden thaws they occaſion in Winter, as by their parching heat in Summer.

It muſt be confeſſed, a great change has taken place in the Diſeaſes of this part of the Country, as well of the hot as cold ſeaſon of the year. I can remember when regular Intermittents chiefly abounded in the Summer and Fall, and ſimply Inflammatory

Fevers in the Winter. Theſe now give place to ſevere Bilious Vomitings, and continued or Remitting Fevers in the Fall, and Synochous and Typhous Fevers in the Winter. Formerly we uſed Tartar Emetic more freely and to greater advantage than we can at preſent. Then, too, the Antiphlogiſtic method of treating Fevers ſerved us well enough; now we have very little uſe for the Lancet.

Our Bilious Vomitings are beſt treated by waſhing out the Stomach with warm demulcent Liquors, then quieting all diſturbance with Anodynes, and finiſhing the cure with Aromatics, Bark, and other Tonic Medicines.

Our Bilious and Remitting Fevers require evacuations more or leſs, have their exacerbations much relieved by Anodynes, and finally yield to the Bark.

In the Cholera Infantum every irritating Medicine taken into the Stomach is injurious. To waſh out the Stomach with Chamomile Tea and Chicken Water, is all the evacuation that can be attempted with advantage. Small doſes of Laudanum in the day and full doſes at night, become then the ſovereign remedy. Bark and Camphor are moſt advantageouſly applied to the ſkin: But nothing more than a palliative cure can be expected, without removing the Patient, from the noxious Air that firſt gave the Bilious impreſſion. For otherwiſe, if not killed outright, the Patient muſt languiſh under the repeated recurrence of the diſorder, with ſuch reſpites now and then as may be barely termed remiſſions, until the cold weather has made an entire change in the Atmoſphere. In this caſe, therefore, we have recourſe to the Bay Shore; and it is ſurpriſing the effects of ſnuffing the ſea breeze for a ſingle day. At Lewes I never heard of the Cholera Infantum; while at Dover it has for years paſt, ſwept off our children in a manner that is ſcarcely credible elſewhere. This puts the efficacy of the ſea air in a ſtrong point of view; and I mention it that others may profit by our experience and obſervation.

The Fever moſt prevalent with us in Winter, is preciſely that deſcribed by D. Cullen, under the name of Synochus. Its firſt attack is generally attended with aching pains all over, and very often with conſiderable Pulmonic affections. Another local affection that often attends it is the Enteritis. The Symptoms that give us the earlieſt and ſureſt warning of its true Type, are Headach and ſickneſs at the Stomach. Gentle evacuations of the Stomach and Bowels are proper in the beginning; but Antimonials are to be uſed with caution. For the removal of local affections, we rely chiefly upon Bliſters. The Lancet is never uſed but upon extraordinary and preſſing occaſions. Languor and weakneſs ſoon come on, and we watch the firſt opportunity of giving the Bark. The moſt free and liberal uſe of this important remedy is, at any time or Stage of the Diſorder, warranted by a dry Tongue. Opium, Wine, Camphor, Volatiles, and all manner of ſtimulants are often employed in the courſe of the diſorder, as neceſſary auxiliaries of the Bark. As ſoon as the Typhous form is correctly marked, the moſt cordial and nouriſhing diet is always uſed.

NUMEROUS obſervations perſuade us, that our Typhous Fevers are more contagious than is generally apprehended. It is remarkable that more or leſs of a family will be affected in ſucceſſion, when a Fever of this ſort is introduced among them, according to the care obſerved in cleanlineſs and a free ventilation. The Typhus, therefore, is peculiarly noxious to negro families. It is ſo common to trace infection from one perſon to another, that the requiſite care to guard the family and viſiting friends from contagion, is among the earlieſt and moſt importunate inſtructions of our Phyſicians to their Patients.

THE ſwelling of the Spleen and other viſceral obſtructions, are beſt relieved by aperient Gumous Medicines taken at the ſame time with Bitters, Aromatics and Tonics, and continued for a length of time. But a Patient once impreſſed with this kind of habit, is only to be ſecured from repeated relapſes, by a change of Climate.

WE have incidental diſorders in common with other people. But I ſuppoſe thoſe only which are ſpecial and peculiar to our State to be to your purpoſe. Theſe I have endeavoured to deſcribe in a curſory way, as well as my time and ſtate of health will permit.

THE cenſus of the inhabitants of this State, taken for the firſt time, is not yet completed; but I have reaſon to think it will amount to not leſs than ſeventy five thouſand. There are no poſſible means of obtaining a regiſter of annual births and deaths.

You will perceive at firſt ſight, that my letter is a haſty performance, delivered only in general terms, and in that form and order in which the ſubject moſt naturally preſented itſelf to my mind. But although neither the arrangement, language, or dreſs of this diſcourſe ſhould be of any uſe to you, the *facts* may be relied upon.

I am, Sir,

With great Reſpect,

Your moſt Obedient Servant,

JAMES TILTON.

Dr. Currie.

An ACCOUNT *of the* SITUATION, CLIMATE, *and* DISEASES *of* MARYLAND.

THIS State is in length 134 Miles, and in breadth 110; is bounded North by Pennſylvania, Eaſt by the Delaware State, South Eaſt and South by the Atlantic Ocean; and by Virginia on the South and Weſt; and is between 37° 56′ and 39° 44′ North Latitude, and 4° 30′ Weſt, Longitude from Philadelphia.

DIVIDED into the Eaſtern and Weſtern Diviſions by the Cheſapeake Bay, which receives a number of the largeſt Rivers in the United States. The Rivers, however, which run through this State are commonly ſmall, except the rapid Suſquehanna, and the Patomac; the latter of which is the boundary between it and Virginia.

East of the Blue Ridge of Mountains, which ſtretches acroſs the Weſtern part of this State, the Land, like that in all the Southern States, is generally level and free from Stones; of courſe the Soil muſt be ſimilar, as well as the generality of its natural productions.

The Houſes of the Inhabitants, who reſide on Plantations, are often ſeveral Miles diſtant from each other, hence they appear to live very retired and unſocial lives; and if we may be allowed to judge of the diſpoſition and manners of Men from the expreſſion of their countenances, the generality of them live diſſatisfied and diſconſolate.

The behaviour of the People remote from towns, excluded from ſocial intercourſe, and the exchange of friendly offices, is expreſſive of indolence, and the moſt conſumate abſence and indifference.

THOUGH Annapolis is the capital of the State, it is much inferior to Baltimore in reſpect to numbers and commercial advantages. The number of Inhabitants in Annapolis does not exceed 2000; in Baltimore there are above 15000.

DR. NUTTER gives the following account of the Diſeaſes which occur on the Eaſtern Shore of Maryland.

" THE Diſeaſes which particularly infeſt the lower extremity of the Eaſtern Shore of Maryland are, in the Winter, the Synochus or the Typhoid Fever of Doctor Cullen. We have inſtances of Fevers with genuine Inflammatory Symptoms in this place, but theſe are not very common. Practitioners are ſo well aware of this, that they ſeldom uſe the Lancet freely."

"I HAVE obſerved that Fevers commencing with Inflammatory Symptoms ſoon go off, and leave the Patient in a ſtate of great debility, with other Symptoms reſembling the Typhus. Theſe are obſerved to be very common in the Month of February, particularly after a general thaw."

"THE ground is uniformly level and low in moſt of the Counties on the Eaſtern Shore, and conſequently in many places covered with ſtagnant Water, except where it is interſected with numerous Creeks. Here are alſo very large tracts of Marſh in this place, which load the Atmoſphere with vapour in the day time, that falls down again in form of dew in the night in the after part of Summer."

"The vernal and Summer Seaſons afford the Inhabitants a reſpite from Diſeaſe.

"The few that do occur at theſe ſeaſons are ſimilar to thoſe of more Northern Latitudes, but for the moſt part milder. The Cholera Morbus and Dyſentery, however, are very prevalent during part of the Summer, eſpecially after extraordinary hot weather.

"The Inhabitants dread the approach of Autumn; and with reaſon, becauſe at this Seaſon Intermittents, Remittents, Diarrhæas and Dyſenteries prevail with aſtoniſhing violence, and frequently extend their ravage far and wide."

"The ravages of the Influenza in 1789, were particularly obſervable in Caroline County, which place is alſo ſubject to the Diſeaſes abovementioned in an extraordinary degree."

By an account received from a Phyſician reſiding at Baltimore, it appears, that Dyſenteries always become epidemical, or very frequent, there in the Autumnal Seaſon, when cold and wet weather ſucceeds a long courſe of that which has been hot and dry.

"The Symptoms are generally ſlightly Inflammatory at the beginning, and yield to gentle Laxatives and diluting mild aqueous Drinks, and fomentations to the Abdomen; after which ſmall Doſes of Anodynes, combined with Tartar Emetic, complete the cure; and a relapſe is prevented by exhibiting the Bark combined with a mild Aromatic."

This correſponds in a great meaſure with the obſervations of Hillary, in his account of the Diſeaſes of Barbadoes, who ſays, in Page 203, Edition 2d. "I have always found from the beſt obſervations that I could make, on the variations of the Air and Weather in this Iſland, that if the Months of May, June, July, and Auguſt were very hot and dry, and the following Months of September, October, and November were accompanied with much Rain, ſo that the Air was rendered cool and damp, and if the intermediate days between the rainy ones were very hot, that Dyſenteries were very frequent and Epidemical, and were generally more or leſs malignant, as the abovementioned changes of the Weather were greater or leſs, more ſudden or more gradual, and ſhorter or of longer duration."

It appears from the obſervations of Hillary, that Dyſenteries conſtantly return every year in the Weſt-Indies with the Periodical Rains; hence it may be concluded, that cold and moiſture operating on the Body in a certain State of Relaxation, are the principal cauſes of this Diſeaſe. From theſe and other circumſtances, I am inclined to think the Dyſentery is never an infectious Diſeaſe or communicable from one to another, except when combined with the putrid or Typhous Fever; and that Dr. Cullen has been miſtaken in aſcribing it to ſpecific infection; but that it is generally, if not always, owing to the joint operation of Marſh Miaſmata and external cold, or is the effect of human Contagion operating on the Syſtem, when the Inteſtines are in a relaxed and Atonic State.

Extract of a Letter from another Correſpondent, reſiding on the Eaſtern Shore of Maryland.

" OUR Summer and Autumnal Weather of one Year varies ſo little from that of another, that the ſame Diſtempers return ſo regularly with the Seaſons, that they may be conſidered as Endemic. Theſe ſucceed each other in the following order.

" TOWARDS the end of July, young children (which I believe ſuffer firſt by exceſſive heat or cold in every Climate) are attacked with the Cholera, or a Bilious Diarrhæa.

In the following Month, Remittents, along the low moiſt country, are very general, and continue to increaſe daily till after the Autumnal Equinox, when they are ſucceeded by Quotidian and Tertian Agues. Dyſenteries ſometimes occur here; but I do not recollect the ſituations in which they are moſt common, neither have I ſeen a ſufficient number of caſes to be able to inform you of the method of treating them which ſucceeds beſt——But this I can ſay, that the generality of the Practitioners in the Diſtrict where I reſide, never puzzle their heads with the inveſtigation of Cauſes, but depend upon the Store of Recipes recorded in Brooke's Practice of Phyſic, or Buchan's Family Phyſician.—If they ſucceed they are ſatisfied; if they fail, they conſole themſelves with the moſt confident aſſurance, that every thing has been done ſecundum artem.

Children are often afflicted with a ſevere kind of Apthæ here in the Autumn and early part of Winter, which often renders them ſcarcely able to ſwallow any kind of ſuſtenance. This appears to be owing to a defective perſpiration, and a relaxed ſtate of the ſolids. And the remedies which I have found moſt ſpeedy in removing it, has been the Warm-bath, Flannel Cloathing, and the Cortex in different forms; and I particularly enjoin removal to the high dry Country, for the benefit of purer Air.

I have many times ſeen the Cholera, with regular periods like a Tertian, and the paroxiſm of Tertians, attended with a Cholera. In a few Caſes I have ſeen a Tertian changed into the Dyſentery, and Dyſenteries into Tertians; and when one of theſe diſeaſes has been ſuppreſſed, the other has ſometimes enſued. I have alſo been told by other Practitioners, that it is very common for Dyſenteries to put on the form of Tertians, and for the fits of Tertians to be regularly accompanied by gripes and ſtools.

“ From the accounts of Sir John Pringle and Dr. Monro, this diſeaſe appears to be contagious in Camps and Hoſpitals; but I believe there are no proofs of its being ſo in private practice.”

The following account of the ſituation and Diſeaſes of George-Town was communicated by Dr. W. Martin.—

“ GEORGE-TOWN is ſituate on the Banks of the River Patowmac, about an hundred and ſixty miles from its entrance into the Cheſapeake Bay. The ground on which it ſtands is very broken, being a cluſter of numberleſs little hills, and which, though they at preſent lie very high above the ſurface of the River, have probably at ſome remote period been overflowed, as at the diſtance of eight or ten feet from the ſurface, marine ſhells have been found. There are no Diſeaſes that I can obtain information of, or have met with myſelf, that can be conſidered ed as peculiar to this place. No Endemics, nor any Epidemics, except occaſionally introduced from other parts and propagated by contagion or infection. There are no marſhy grounds nor ſtagnant waters near it. The country, though not in high cultivation, is yet ſufficiently cleared to favour the ſalutary effects of free ventilation.

" The State of Society here, as it is not favourable to agreeable ſociali ntercourſe, ſo alſo there are none of thoſe complaints to be met with that ariſe from a too free uſe of the *bottle*, or exceſſive eating (I ſpeak of the better claſs of people). On the other hand, the meagre Diet, chiefly *Indian bread* and ſalted fiſh, together with the inſatiable deſire for *Rum*, and a want of cleanlineſs among the lower ranks, often give riſe to Diſeaſes of extreme Debility; and to a cutaneous diſeaſe (which if any diſeaſe is endemic from its general prevalency this is) called the Itch (Pſora).

“ In ſhort, the ſtate of diſeaſes are ſo nearly ſimilar to thoſe with you, that it is ſcarce neceſſary to enumerate them. In the Winter and Spring we have Pneumonia, Rheumatiſm, Sore-throat (Cynanche Tonſilaris) Catarrh, &c. In the Summer Cholera and Diarrhœa. In Autumn, now and then a caſe of Remittent; Intermittents leſs frequently.

“ In the Cure even of inflammatory Diſeaſes, we find more ſucceſs in moderate and frequent than in copious Venæſection. Our greater poſition to the Southward than you, the longer continuance of our heat in Summer, as well as of its greater intenſeneſs, renders the Bodies of the inhabitants more relaxed, and conſequently more diſpoſed to diſeaſes of debility, ſuch as Idiopathic Fevers and Diarrhœas, than in more northern latitudes, and certainly occaſions the ſymptoms in phlogiſtic caſes to be more mild.

"Upon the whole, George-Town and its vicinity, may be conſidered as a healthy part of America; and in any diſputes about the propriety of the ſeat of the General Government being fixed here, no objection can be urged againſt it on account of its Diſeaſes."

Dr. John Shaff acquaints the Author, that Annapolis the Capital of Maryland "is probably one of the moſt ſalutary ſituations on the Continent, the number of inhabitants ſmall, that he rarely meets with any but ſporadic Caſes of Typhus, and that their other Fevers are moſtly of the Intermitting, Remitting, and inflammatory Type."

Dr. Johnston, of Baltimore, informs that he has met with numerous Caſes of Dyſentery in ſituations out of the reach of Marſh Miaſmata.

In the Diarrhœa of Children he is of opinion, that Dentition, if not the Cauſe of the

Diſeaſe, has a great ſhare in aggravating it, by increaſing the irritability of the Syſtem. "The Thebaic Tincture in ſmall doſes; Alum, Com. diſſolved in ſpring water, coloured with Coccinella ſo as to give a grain in a tea ſpoonful, is the uſual doſe and manner in which I give that medicine, after every looſe ſtool, to a child of ſix or eight months old to a year, and increaſe it in proportion to the age. To women with the ſame complaint, who give ſuck, and in many caſes of Dyſentery, after clearing the Primæ Viæ with Ipecacuanha, I give Allum. Com. from five to ten grains, with as many drops of Thebaic Tincture. I direct infants of all ages to be bathed in cold water, if the weather is hot, either by a partial application of it to the head and ſhoulders, or by immerſion; after which they are rubbed dry, and wrapped up in flannels, to bring a glow of heat to the ſurface, and promote the good effects of that reaction, which the ſudden application of cold rarely fails to produce.

"SOME of our Medical Gentlemen are very fond of the Gum Kino in the Diarrhœa Infant. I have uſed it ever ſince Dr. Fothergill publiſhed his opinion of it in the 1ſt. Vol. Lond. Med. Obſervations; but I am convinced that the alum is beſt by itſelf, or in red wine more effectually to diſguiſe it.

"I REFER you to Vanſwieten's Commentaries, Vol. ix. Section 923, for a ſolution of your other enquiries, &c."

Extract of a Letter, dated Dorcheſter, *February 18th*, 1790.

AFTER giving a ſimilar account of the Diſeaſes more or leſs epidemic at particular Seaſons with thoſe already inſerted, a Phyſician whoſe name I have not permiſſion to mention, informs me, that Dropſical Caſes are very frequent in that part of the country where he practiſes; and that he has been generally ſucceſsful in curing them by the Digitalis in decoction, which he prefers to the powder.—For particulars he refers to a paper on the Dropſy by Eraſmus Darwin, publiſhed in the Medical Tranſactions of the London College of Phyſicians; of which the following is a copy.

" Boil of the freſh green leaves of the Digitalis Purpurea, or Fox-glove, 4oz. in common water from two pints to one, and add to the ſtrained liquid of vinous ſpirit, 2oz.

" Of this Decoction one large table ſpoonful is to be given early in the morning, in every variety of Idiopathic Dropſy, whether in the form of Hydrocephalus, Hydrothorax, Aſcites, or Anaſarca; and ſhould be repeated every hour till the Patient has taken from three to eight or nine ſpoonfuls, or till ſickneſs or ſome other diſagreeable ſenſation is induced.

The Hydropic fluid generally diſappears

on the next day, or on the third day, without any repetition of the medicine, and frequently without any apparently increaſed evacuation; at other times, with Vomiting and a large flow of Urine, and ſometimes with purging ſtools.

To ſome whoſe conſtitutions appeared to be robuſter, the doſe was increaſed to half or a whole ſpoonful more, if the firſt two or three ſingle ſpoonfuls occaſioned no nauſea. But as ſome of theſe Patients complained of very great debility during its operation, it was judged more prudent to uſe rather an under than an exceſſive doſe. In ſome, who had been two or three times relieved by the ſame method in the ſpace of eight or ten months, a leſs quantity was found to ſucceed: To theſe, half an ounce of the decoction, mixed with an ounce of ſimple Pepperment-water, or with a decoction of Bark and Snake-root, was given twice or thrice a-day, for two or three ſucceſſive days.

On the day after the exhibition of the Digitalis, or on the third day, or as ſoon as the ſickneſs occaſioned by it ceaſed, an infuſion of the ſtem leaves of Artichoke, or a ſtrong Decoction of the Bark, with a ſmall quantity of ſome Chalybeate Medicine, (of which I give the preference to the Flores Martiales, from two to ſix grains, or in lieu of this, the Vitriol Martis, or common Copperas, as it is improperly called, from one quarter of a grain to two grains, diſſolved in ſome Aromatic Water, or mixed with Syrup of Ginger) was generally given twice a-day. and one grain of Opium every night, with as much Rhubarb or Aloes as occaſioned a ſtool next day. This quantity of Opium was perſiſted in for ſome weeks, without increaſe or diminution, as it ſeemed to be particularly ſerviceable.

The convaleſcent Patients were allowed to eat fleſh Meats, if their Stomachs could bear it, twice or thrice a-day, and alſo Shell-Fiſh and Eggs, Spiceries and aromatic Vegetables, particulary Cellery and Water-creſſes, Pepper-graſs, &c. They were alſo adviſed to drink half the quantity of any Liquor to which they had formerly been accuſtomed, except of diſtilled Spirits, which was always prohibited, except where Dypeptic ſymptoms rendered them really neceſſary.

"It is obſervable, that when a ſufficient doſe of the Foxglove Decoction is given at firſt to produce the effect deſired, a much leſs quantity will have the ſame effect afterwards. This I ſuppoſe is owing to the facility our Conſtitutions poſſeſs of acquiring habits of action after having been excited by adapted ſtimuli.

☞ Thus if ten grains of Aloes be at firſt exhibited as a Cathartic, the doſe may be gradually decreaſed to one grain, and it will ſtill produce the ſame effect, the conſtitution having acquired a habit of obeying its ſtimulus.

mulus. On the contrary, if one grain of Aloes be at firſt exhibited, and does not Purge the Patient, it may be increaſed by ſlow degrees to twenty grains without proving Cathartic.

" Hence Drunkards who begin with large quantities of ſtrong Liquors, become at laſt intoxicated with ſmall ones; while thoſe who do not quite inebriate themſelves daily, will be enabled at length to quaff whole gallons without intoxication.

" I believe the Hydrocephalus Internus is more frequent with us than with you; and am of the ſame opinion with you, that it is often preſent when the Patient's eyes are not affected with Strabiſmus. I believe Whytt and Fothergill have both given accurate deſcriptions of the Diſeaſe as it frequently appears; the former having only obſerved it in a Chronic ſtate, the latter in an Acute one.

"I THINK the inference drawn by Quin from the caſe he diſſected, in which he found marks of Inflammation inſtead of Water in the ventricles of the Brain, ſhould have no weight.

"I HAVE ſeen more than twenty caſes of this diſeaſe, the greateſt part of which died of it. I have taken particular pains to enquire into the riſe and progreſs of the ſymptoms of every one that ever came under my notice, and I have now been in practice in different parts of Maryland thirty-four years; but have never met with a ſingle caſe where the diſeaſe was immediately preceded by an inflammation of the Brain, or its inveſting Membranes.

"BUT whatever be its remote or occaſional cauſes, its proximate cauſe is are laxed or atonic ſtate of the Exhalents which terminate, and of the Abſorbents which originate in the ventricles of the Brain.

"This complaint has often been miſtaken for ſymptoms ſuppoſed to be occaſioned by Worms. That Worms may, and ſometimes do, occaſion Convulſions in very debilitated and irritable conſtitutions, by the irritation they are capable of giving, I have no doubt; but I believe they ſeldom occaſion either Fever or Delirium; at leaſt, I have never ſeen a caſe where, I think, thoſe ſymptoms could be fairly aſcribed to theſe reptiles. I have opened ſeveral Negro Children here, who were ſuppoſed to have died of what is erroneouſly called the Worm Fever; but inſtead of meeting with any Worms, have frequently found Tubercles and ſmall Vomicas in their Lungs, of which there was no ſuſpicion while alive."

Our Planters, who are generally hard Drinkers, are frequently afflicted with the Rheumatiſm as they advance in years. This, though frequently accompanied with phlogiſtic Diatheſis at firſt, ſoon degenerates into the oppoſite extreme, and depends upon an atonic ſtate of the Muſcular Fibres. Under ſuch circumſtances, the ſtimulus of external heat, confined by flannel clothing next to the the ſkin, a ſtrong decoction of the Cortex and Serpentaria, with the moderate uſe of Brandy and Water, and the moderate and regular uſe of Animal matter, in form of Soups and Jellies, the occaſional uſe of Opium, to mitigate Pain, ſeldom fail to cure the diſeaſe; whereas Purging and Abſtinence never fail to prolong it, eſpecially when Chronic and free from Phlogiſtic Diatheſis.

THAT Dyſenteries do not always depend upon Contagion, appears from this, that they often occur here in rainy weather in February, at leaſt we have Diarrhœas, accompanied with Teneſmus, and preceded by a cold ſtage, or frequent thrilling ſenſations, and all the other characteriſtic ſymptoms deſcribed by Dr. Cullen, which generally yield to the treatment and medicines he recommends.

" When the Gout occurs, I treat it in the very ſame manner as I do the different ſtages of Rheumatiſm; and am of opinion, that Sydenham's erroneous theory has retarded our improvement in medicine, particularly in the cure of this diſeaſe, more than all other circumſtances put together.

" Where the pulſe, pain and heat indicate, I bleed and purge without reſerve, and enjoin the antiphlogiſtic regimen; where theſe ſymptoms are abſent, and ſymptoms of debility, and loſs of appetite, or ſickneſs at ſtomach is diſtreſſing, I as freely and without reſerve, have recourſe to ſmall and repeated doſes of Laudanum, ſound and pure Wine, Bliſters, the Hot-bath and Flannel Cloathing; and when in a convaleſcent ſtate, Decoctions of Bark, Snake-root, and the artificially made Mineral Waters, impregnated with fixed Air, (for which purpoſe I have provided myſelf with Nooth's Machine) with exerciſe, and regular but not abſtemious living.

"PEOPLE who declaim againſt the uſe of Spirituous Liquors, ſhould always conſider climate and ſituation. In cold or even temperate climates I believe they may generally be diſpenſed with; but that man muſt be a ſuperficial obſerver, who condemns the moderate uſe of them, when relaxed by the intenſe and long continued Summer heats of this climate, or in any climate, when exhauſted by fatiguing exerciſe.

"THEY are particularly neceſſary to prevent Dyſpepſia, where much vegetable and little animal matter is uſed.

"THE inſenſibility of the Syſtem is aſtoniſhing, in many caſes of Hydrocephalus Internus; I have frequently given four grains of the beſt Calomel for four ſucceſſive days, three times a-day, to Children of three or four years of age, without producing any ſenſible effect; and when it does operate, it is generally by ſtool, ſeldom or ever, except when combined with Opium, upon the Salivary Glands of young children.

"I THINK I have ſeen five or ſix marked caſes of this Diſeaſe cured by perſiſting in its uſe, and ſupporting the Patient with, Vinous Drink, and a liquid cordial Diet; Bliſters might be applied to the Head or Neck, at the ſame time as coinciding with the intention of the other remedies.

"WHEN Friction is employed, it ought to be uſed in four times the quantity that might be requiſite in almoſt any other Diſeaſe, becauſe of the extraordinary inſenſibility to its ſtimulus in this.

"As you have Dobſon's communications on this ſubject, and can ſee the ſentiments of others in Duncan's Commentaries, I ſhall trouble you no farther with my imperfect thoughts on the ſubject at preſent; but I cannot prevail on myſelf to conclude, without a ſhort animadverſion on the new and inconſiſtent Doctrine taught and publiſhed by the late Dr. Brown of Edinburgh. This man (whoſe talents I admire, and if he had employed them in the ſervice of truth, I ſhould have venerated) has had the preſumption to aſſert, that there is not a direct Sedative in nature. What then are the contagions which produce different ſpecies of Idiopathic Fever, Dyſentery, and Peſtilence? If the primary operation of theſe is to produce weakneſs, are they not direct Sedatives in the ſtricteſt ſenſe of the term. Does their operation conſiſt in the privation or abſtraction of Stimuli? (which they ought to do conſiſtent with one of the fundamental principles of this Doctrine). By no means.—Do they produce their effects by their exciting power, waſting the excitability, and producing weakneſs of the indirect kind by that means?——Surely no, for they are aſſiſted in their effects by

Hunger, Cold, Grief, which are privations or abſtractions of ſtimulant powers. On the contrary, their effects are retarded or counteracted by Stimulant Powers. Theſe Contagions operate ſlowly, and the Patient feels indiſpoſition for ſeveral days before he is ſeized with Fever.

"WINE induces indirect weakneſs, but the Syſtem is firſt exceſſively ſtimulated.

"BY ſimply drawing into the Lungs a conſiderable portion of fixed Air, iſſuing from any fermenting liquor, a heathy man is inſtantly killed, whereas if the atmoſphere, or the dephlogiſticated Air, which forms the greateſt portion of it be excluded for ſeveral minutes, he is not deprived of life; but if animation or motion, the effects of animation, be ſuſpended thereby, he may generally be reſtored by inflating his Lungs with pure atmoſpheric Air again.

" This has been fully proved by the experiments of the late ingenious Dr. Edmond Goodwin, in his Eſſay on the Connection of Life with Reſpiration; from whence it appears, that the generality of drowned perſons may be reſtored to life by the application of external heat to the body, gradually applied, till it equals that of an inflammatory Fever, or 112 degrees of Fahrenheit's Thermometer; after which, and not before, the Lungs are to be inflated by a pair of bellows, paſſed into one of the noſtrils, giving five or ſix blaſts ſucceſſively, and then intermitting half a minute or more, to obſerve the effect, &c.

" In order to produce the requiſite heat, the Hot-bath is the beſt means; but when that cannot be procured, the Patient ſhould be laid on hot ſalt, or aſhes, which ſhould be covered with a woollen blanket, and himſelf covered with three or four others, well-heated. Heated Salt, Aſhes, or Sand in Woollen Bags, or Jugs of boiling Water, eſpecially the latter, being applied to or near his feet at the ſame time." Excuſe me for tranſcribing what I am ſure you have often peruſed in the work at large.

"To conclude, the fair deduction from the Doctrine of Mr. Brown, is, that, as no Diſeaſe can ſurvive its Cauſe, it muſt ceaſe of neceſſity in all Caſes where the excitement is to exceſs, as ſoon as that exceſſive excitement is reduced by the abſtraction of Stimulant Powers to a certain point at which Health is ſuppoſed to reſt; and that in all caſes of Debility, where the excitement is below the healthy point of the imaginary Scale, it muſt alſo neceſſarily ceaſe ſo ſoon as a ſufficient number of Stimuli have been applied, as the Syſtem muſt be thereby raiſed to that point; or if too violent Stimuli be applied, ſo as to raiſe the excitement beyond that point, it will be changed into a Diſeaſe of the oppoſite nature and form.

“ As it is the duty of every one to point out ſuch errors as have a tendency to miſlead, or prove injurious, I hope you will pardon me for digreſſing ſo wide from the object of your enquiries, and believe me to be, &c.”

A SKETCH

A SKETCH
OF THE
SITUATION, APPEARANCE, AND CLIMATE
OF
VIRGINIA.

THIS State is in Length 758 Miles, and in Breath 224; between 36° 30', and 40° North Latitude, &c.

BOUNDED Eaſt, by the Atlantic Ocean; North by Pennſylvania and the river Ohio; Weſt by the Miſſiſippi; and South by North-Carolina.

EAST of the Blue Ridge of Mountains, the Land is level and low, like that of Maryland.

The Mountains in this State commence about 150 Miles from the Sea-Coaſt, and are diſpoſed in Ridges, one behind another, running nearly parallel with the Sea Coaſt.

The Alleghany is the great Ridge which divides the waters of the Atlantic from thoſe of the Miſſiſippi; its ſummit is doubtleſs more elevated above the Ocean than any other Mountain: But its relative height compared with the baſe on which it ſtands, is not ſo great as that of ſome others.

The Mountains of the Blue Ridge (and of theſe the Peaks of Otter, are thought to be of greater height, meaſured from their baſe) are higher than any others in Virginia, or perhaps in North-America. The higheſt Peak is ſaid to be 4000 feet perpendicular, which is not a fifth part of the height of the

[*] Mountains in South-America, nor one-third of the height which would be neceſſary in this latitude to preſerve ice unmelted in the open air through the year. The Ridge of Mountains next beyond the Blue Ridge, (called the North Mountains) is of the greateſt extent.

“ There are ſeveral Medicinal Springs in Virginia. The moſt efficacious of theſe are, two Springs in Auguſta, near the firſt ſources of James river, where it is called Jackſon's River.

“ They riſe near the foot of the Ridge of Mountains generally called the Warm Spring

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[*] In South-America, the Andes or Cordelleras run from North to South along the Coaſt of the Pacific Ocean. Theſe Mountains extend 4300 miles, from the Iſthmus of Darien to the Straits of Magellan. Their height is as remarkable as their length, the higheſt being 20,633 feet ; of this about 2,400 from the ſummit, are always covered with ſnow, though in part within the torrid Zone.”

Guthrie's General Deſcription of America.

Mountains, but in the Maps, Jackſon's Mountains. The one is diſtinguiſhed by the name of the *Warm Spring*, and the other the *Hot Spring*. The Warm Spring iſſues with a very bold ſtream, ſufficient to work a griſt-mill, and to keep the waters of its baſon, which is 30 feet in diameter, at the vital warmth, viz. of 96 degrees. The matter with which theſe waters are allied is very volatile; its ſmell indicates it to be ſulphureous, as alſo does the circumſtance of its turning ſilver black. It rains here four or five days in almoſt every week. The *Hot Spring*, which is about ſix miles from the Warm, is much ſmaller. It raiſes the Mercury in Fahrenheit's Thermometer to 112 degrees, which is fever heat. A fountain of common water iſſuing within a few inches of its margin, gives it a ſingular appearance. Comparing the temperature of theſe with that of the hot ſprings of Camſchatka, of which Krachininnikow gives an account, the difference is very great, the latter raiſing the Mercury to 200 degrees, which is within 12 of boiling water.

"* There are ſweet ſprings in the County of Boutetourt, at the Eaſtern Foot of the Alleghany, about 42 miles from the Warm Springs. Theſe are as cold as common ſpring water.

"On the Patowmac river, in Berkley County, above the North Mountains, are Medicinal Springs much more frequented than thoſe of Auguſta, though their waters are much weaker mineralized, and ſcarcely warm. They are more frequented, becauſe ſituated in a fertile, plentiful, and populous country, better provided with accommodations,

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* Theſe Springs have been analyzed by James Madiſon, Eſq. by which it appears that they have been falſely called ſweet, their taſte being evidently acidulous. The experiments alſo prove, that they contain an acid. Their taſte reſembles exactly that of Waters artificially impregnated with fixed air, extricated from Chalk by means of Vitriolic Acid, and is nearly the ſame with the true Pyrmont Waters. Other Experiments ſhow, that theſe Waters contain neither Sulphur nor Iron. Their efficacy is highly extolled, (whether deſervedly or not I cannot reſolve), in many Chronic Diſeaſes, and particularly in Conſumptive and Scrophulous Complaints.

tions, always ſafe from the Indians, and nearer to more populous States. There is a weak Chalybeate at Richmond, and many others in various parts of the State, but of too little note to be enumerated after theſe already mentioned."

(JEFFERSON.)

CLIMATE.

"IN this extenſive State it is not to be expected, that the Climate ſhould be the ſame in all its parts.

"It is remarkable, that proceeding in the ſame parallel of latitude weſtwardly, the Climate becomes colder in like manner, as well as when you proceed northwardly.

"THIS continues to be the caſe till you attain the ſummit of the Alleghany, which is the higheſt land between the ocean and the Miſſiſippi. From thence deſcending in the ſame latitude to the Miſſiſippi, the change reverſes; and if we may believe travellers, it becomes warmer there than it is in the ſame latitude on the Sea-ſide. Their teſtimony is ſtrengthened by the vegetables and animals which ſubſiſt and multiply there naturally, which do not on the Sea Coaſt.

Catalpas grow ſpontaneouſly on the Miſſiſippi as far as the latitude of 37°, and Reeds as far as 38°. Paroquets, even Winter, in the Scioto in the 39th degree of latitude."

" The difference of temperature in the Air at the Sea Coaſt, or the Cheſapeake-Bay, and at the Alleghany has not been aſcertained; but cotemporary obſervations made at Williamſburgh, or in its neighbourhood, and at Monticello, the latter of which is ſituated nearly central between the Bay and Alleghany, or between the Southern and Northern Boundaries of the State, may be conſidered as furniſhing the beſt average of the temperature of its Climate. Theſe Obſervations make the difference between Williamſburgh and Monticello, to be on an average $6\frac{1}{8}$ degrees of Fahrenheit's Thermometer.

" WILLIAMSBURGH is much too near the South-Eaſt Corner to give a fair idea of the general temperature.

" BUT a more remarkable difference is in the Winds which prevail in the different parts of the Country."

FROM Mr. Jefferſon's Meteorological Tables it appears, that the South-Weſt Wind prevails equally at Williamſburg and Monticello; that the North-Eaſt is next to this the principal Wind towards the Sea-Coaſt, and the North-Weſt is the predominant Wind at the Mountains. The difference between theſe two Winds to ſenſation, and in fact, is very great; the North-Eaſt is loaded with vapour, inſomuch that the Salt Manufacturers have found that their chryſtals would not ſhoot while that blows, it occaſions a diſtreſſing chill, and a heavineſs and oppreſſion of the ſpirits. The North-Weſt is dry, cooling, elaſtic, and animating. The Eaſtern and South-Eaſtern breezes come on generally in the afternoon. They have advanced into the country very ſenſibly within the memory of people now living. As the lands become more cleared, it is probable that they will extend ſtill farther Weſtward. The farther they extend into the Country, the leſs moiſt they become, as they depoſit it in their progreſs.

" The variation in the weight of the Atmoſphere, as indicated by the Barometer, is not equal to two inches of Mercury. During twelve months obſervation at Williamſburg, the extremes were 29 and 30.86 inches, the difference being 1.86 of an inch; and in nine months, during which the height of the Mercury was noted at Monticello, the extremes were 28.48 and 29.69

29.69 inches, the variation being 1.21 of an inch. A Gentleman, ſays Mr. Jefferſon, who has obſerved his Barometer many years, aſſures me it has never varied two inches.

" Cotemporary Obſervations, made at Monticello and Williamſburgh, proved the variation in the weight of the Air, to be ſimultaneous and correſponding in theſe two places.*

" The changes from Heat to Cold, and Cold to Heat, are very ſudden and great. The Mercury has been known to deſcend from 92° to 47° in thirteen hours.

" The following Table contains the Reſult of five years Obſervations reſpecting the average State of the Heat for every Month in the Year, at Williamſburgh, which is the hotteſt part of Virginia; viz. from 1772 to 1777.

Leaſt

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* If theſe Obſervations are accurate, Monticello muſt be at an equal height from the level of the Ocean with Williamſburgh, for the Mercury in the Barometer falls one-tenth of an inch for every 90 feet perpendicular, that we aſcend above that level.

	Leaſt and greateſt daily Heat by Farenheit's Thermometer.		
January	38½	to	44
February	41	—	47½
March	48	—	54½
April	56	—	62½
May	63	—	70½
June	71½	—	78½
July	77	—	82½
Auguſt	76¼	—	81
September	69½	—	74¼
October	61¼	—	66½
November	47¾	—	53½
December	43	—	48½
	8 A. M.		4P. M.

This Table propoſes to ſtate only the ordinary Heat and Cold of each Month, and not thoſe which are extraordinary.

At Williamſburgh, in Anguſt 1777, the Mercury in Farenheit's Thermometer was at 98°, coreſponding with 29½ of Reaumur. At the ſame place, in January 1780, it was 6°. correſponding to 11½ below 0 of Reaumur. I believe theſe may be conſidered as the extremes of Heat and Cold in that part of the country. The latter may moſt certainly, as at that time York River at Yorktown was frozen over, ſo that people walked acroſs it; a circumſtance which proves it to have been colder than the Winter of 1740-1, uſually called the *hard* Winter, when York River did not freeze over at that place. In the ſame ſeaſon of 1780, Cheſapeake-Bay was ſolid from its head to the mouth of Patowmac.

At Annapolis where it is 5¼ miles over between the neareſt points of land, the ice was from five to ſeven inches thick quite acroſs, ſo that loaded carriages went over on it.

Those extremes of Heat and Cold, at 6° and 98°, Mr. Jefferſon obſerves, were indeed very diſtreſſing, and were thought to put the human conſtitution to the extent of trial. Yet, continues the ſame reſpectable Author, a Siberian would have conſidered them as ſcarcely a ſenſible variation.

At Jenneſeitz, in that country, in latitude 58° 27′, we are told, that the cold in 1735 ſunk the Mercury by Farenheit's Scale to

126° below nought; and the inhabitants of the ſame country uſe ſtove rooms two or three times a week, in which they ſtay two hours at a time, the Atmoſphere of which raiſes the Mercury to 135° above nothing.

LATE experiments ſhew, that the human body will live in rooms heated to 347 degrees, that is 135°. above boiling water.

THE hotteſt point of the twenty-four hours is about four o'clock, P. M.; and the dawn of day the coldeſt.

ON comparing the extremes of Heat and Cold at Williamſburg, with the ſame at Paris, it appears they are in greater at Paris.

THE acceſs of Froſt in Autumn, and its receſs in the Spring, do not ſeem to depend merely on the degree of Cold; much leſs on the Air's being at the freezing point. That other circumſtances muſt be combined with the Cold to produce Froſt, is evident from this alſo, that on the higher parts of Mountains, where it is abſolutely colder than in the plains on which they ſtand, Froſts do appear ſo early by a conſiderable ſpace of time in Autumn, and go off ſooner in the Spring than on the plains*. This greater privilege againſt the Froſt on Mountains, is undoubtedly combined with the want of dew there. That the dew is very rare in their higher parts, I may ſay with certainty, (ſays Mr. Jefferſon) from twelve years obſervations, having ſcarcely ever ſeen during that time, an unequivocal proof of its exiſtence at all on them during Summer.

That unfortunate fluctuation between Heat and Cold, ſo deſtructive to Fruit, prevails leſs in Virginia than in Pennſylvania in the Spring Seaſon; nor is the overflowing of the

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* In the Summer Seaſon, the Vapours by the time they attain to to the height of the Mountains become ſo attenuated, that they have not ſufficient gravity to ſubſide, and form a dew when the Sun retires.

Vid. Jefferſon's Notes on Virginia, page 87.

Rivers in Virginia ſo extenſive or ſo frequent at that Seaſon, as thoſe of the New-England States;—becauſe the ſnows in the former do not lie accumulating all Winter, to be diſſolved altogether in the Spring, as they do in the latter.

In Virginia below the Mountains, the Snow ſeldom lies more than a day or two, and ſeldom a week; and the large rivers very ſeldom freeze over. This fluctuation of weather, however, is ſufficient to render the Winters and Springs very unwholſome, as the inhabitants have to travel in almoſt perpetual ſlop.

Extract of a letter from a Phyſician at Peterſburgh, in Virginia, dated December 8th, 1790.

"IN the Winter and Spring, reckoning from January to the Summer Solſtice, our epidemic Diſeaſes are principally Rheumatiſms and Catarrhs; ſeldom any genuine Pleuriſy, but a ſpurious and complicated kind is very common, accompanied with great proſtration of ſtrength, Sickneſs, and Vomiting, Coma or Comatoſe Delirium, as well as pain in the Thorax, Cough, and difficulty of Breathing, and is the moſt mortal Diſeaſe we have, to Adults. The Remedies which the Phyſicians of this place have found moſt ſucceſsful in this Diſeaſe, have been a repetition of mild Emetics, and the application of Bliſters to the Wriſts, as well as to the parts affected, and a few Drops of Laudanum, and Antimonial Wine, every three or four hours, in a Draught of Barley Gruel, or Tea made of Linſeed and Sage, for the firſt two or three days after its attack; but if the debility increaſes, we find nothing equal to Volatile Alkaline Salts and Wine Whey. Good effects have alſo been ſometimes produced by a Decoction of the Seneca Root, given in ſuch Draughts as to create a ſlight nauſea. Bleeding has been obſerved to aggravate the Diſeaſe ſo frequently, that the lancet has almoſt fallen into diſcredit. I however, always venture to open a vein when the pain is acute, and the reſpiration difficult, and ſometimes a repetition, but am very cautious in the quantity drawn at once. The lowneſs of our ſituation, and the long continued and exceſſive heats to which we are ſubject, render us amazingly infirm, and occaſion a Diatheſis of ſo lax a texture, that an inflammatory affection cannot exiſt many days without terminating in a gangrene. I have ſometimes had thoughts of trying the effects of Mercurial Frictions in this Diſeaſe, becauſe of the analogy it bears to the Hepatitis which occurs in hot Climates; but have hitherto been deterred from the attempt, owing to certain conſcientious ſcruples.

“ I HAVE ſometimes followed the method recommended by Dr. Hamilton, in the management of Inflammatory Diſeaſes, and have given from one to three grains of Calomel, and from one-fourth to a grain of Opium, and as much Tartar Emetic, to which I have ſometimes added a few grains of Camphor, made into a Boluſs with conſerve of Roſes, every ſix or eight hours, for ſeveral days, accompanied with a Decoction of Seneca, Sarſaparilla, and Liquorice Root, and in ſome Caſes with immediate and evident advantage; but I muſt ingenuouſly confeſs, that the major part of the Caſes in which I have employed it, as well as every other Remedy, has hitherto failed with me.

"THE extreme weakneſs and dejection, hinder large and repeated Bleedings, which are the only things capable of removing genuine Inflammations.

"FROM the Summer Solſtice till after the middle of September, Choleras and Diarrhœas are epidemic here, and are ſo mortal among Children that it has given riſe to a common, but very erroneous notion, that none born here ever arrive to Manhood, whereas I am very certain, that more than two-thirds of the number born here annually, do not die the ſame year; what proportion arrive to Manhood, I have not been able to aſcertain as yet, but ſhall ſet about the enquiry as ſoon as I have leiſure.

"The Flux commonly occurs about the middle of Auguſt, and continues more or leſs epidemic till the Froſt ſets in, which is ſeldom before the middle of October.

"This Diſeaſe does not occur every year; is more common in cool and wet Summers than in warm and dry ones. I am ſorry, that it is not in my power to reſolve your queſtion about its being infectious; but from the preprevalency of that opinion, and from the account given by Lind, in his papers on infection, I am inclined to think it is.

"Our Plan of Cure in this Diſeaſe differs conſiderably from that recommended by Dr. Cullen:—We truſt principally to Decoctions of Bark, Snake-root, and Rhubarb, with the liberal uſe of Opium, and Vinous, or other

Spirituous Drinks; and when the debility is great, we employ the Hot-bath, and apply Rubefacients to the Abdomen and Limbs. This treatment perhaps, in a different ſituation, would be improper and injurious; but I declare upon my honour, it ſeldom fails curing the Diſeaſe in this place, where it is punctually adhered to.

" Our Intermitting and Remitting Fevers begin very early in Autumn, and continue to be more or leſs epidemic till the middle of Winter, eſpecially the former.

" In the Cure of the Remitting Fever, we find the bark by no means effectual, without the liberal uſe of Wine; and in very relaxed habits, we find it neceſſary to have recourſe to Brandy; this laſt, taken in ſmall quantities, and repeated every hour, without any addition, has ſucceeded with us in many Caſes of Remittent, accompanied with great Dejection of Strength and Depreſſion of Spirits,

rits, when the Bark alone has had every apperance of aggravating the Diſeaſe. Huxham's Tincture is conſidered as a Catholicon.

"From theſe circumſtances you will be led to think us all Drunkards; this, however, is by no means the caſe. We live full, and drink freely, but ſeldom ſo much as to induce intoxication. But the Heat of our Climate, and our confined ſituation, (being ſhut out from the acceſs of the Winds, by high hills on every ſide) has ſuch an effect on our Conſtitutions that they very nearly reſemble thoſe of hard Drinkers;—hence, we require a conſiderable quantity of Stimulating Aliment, and Vinous Drinks, to keep up a balance between the ſeveral functions of the body.

"I have never met with any Caſe of Tetanus, but what aroſe in conſequence of a leſion of a nervous part;—and though I have the higheſt Veneration and eſteem for Dr.

Ruſh, whoſe experience and ingenuity ſtand unrivalled in our Country, I have never yet had the courage to omit the employment of Opium in large Doſes, repeated every 4th, 6th, or 8th hour, while any Spaſmodic Symptoms remained, along with the liberal uſe of hot Brandy-Tody, and high ſeaſoned Soup, in which Cayenne Pepper, was a principal Ingredient.

"I HAVE read both Sydenham and Brown, and though I think them both eccentric and erroneous in many things, I am convinced a man of judgment may derive inſtruction from them both."

COPY *of a* LETTER *from* Dr. JAMES LYONS.

"*Dear Sir*,

"I HAD the honour of receiving your favour of March the 6th, which mentions your having undertaken a Work, the utility of which has been long impreſſed on my mind; and the execution of which I once had in contemplation, though on a ſcale leſs extenſive than the one you propoſe. It occurred to me ſoon after my return from Europe, that an account of the Climate, modes of Living, and the Diſeaſes of the lower parts of Virginia, after the manner of Cleghorne's Minorca, might be of ſome ſervice in inveſtigating the Cauſes and improving the treatment of the Epidemics, and perhaps might induce the Medical Gentlemen diſperſed over other parts of the State, to record and publiſh their obſervations, ſo as to form altogether, a book of uſeful practice. The interruption which would have been given to my buſineſs, however, and finding that more experience and time would be requiſite than I could conveniently ſpare, prevented my purſuing the idea. From your advantageous ſituation, and your endeavours to collect information, there can be no doubt, but the performance will receive all the advantage which the aſſiſtance of able and experienced Practitioners,

ers, united with your own obſervations, can afford; and I am ſorry that profeſſional engagements, moſtly in the country, and the ſhort notice, will not allow me to anſwer your queries to my ſatisfaction.

"I AM at preſent reſiding in Hanover-town, which is ſituated nearly at the head of navigation, on the South ſide of Pamunkey, the principal Branch of York River. It contains about one hundred and ſeventy* inhabitants, and is ſupported chiefly by Merchants, who have placed themſelves here for the convenience of purchaſing the beſt Tobacco in the State, which is ſuppoſed to be brought to the public warehouſes at this place.

"IT was thriving faſt before the ſeat of government was removed to Richmond; †

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* The County of Hanover, by the late Cenſus, contains 14,300 Inhabitants.

† Richmond, the preſent Seat of Government in this State, is built upon a commanding eminence on the North ſide of James's River, a little way below the Falls, and ninety miles from its mouth, contains about 360 houſes, and 2000 inhabitants

but that city being only twenty miles diſtant, has conſiderably altered the channel of trade and retarded its increaſe. The town is built on an extenſive plain, and the lands for many miles above and below it, are remarkably level and fertile, and the country in thoſe directions is generally thought the moſt beautiful in Virginia;—but if its inhabitants poſſeſs ſuperior advantages in the kindneſs of their ſoil, they ſuffer almoſt a proportional deduction from their profits and other enjoyments, by being expoſed to attacks from the Intermittent and Remittent Fevers, for two or three months in every year.

"The Country may be divided into low grounds, ſecond low grounds or more elevated, and the hills, which commence where the latter terminate. The former which

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tants. This Town is about ſixty miles Weſtward of Williamſburgh, which contains about nine hundred inhabitants, and is about twenty-five miles Northward of Peterſburgh. This laſt is built on the South ſide of Appomatox River, in a low ſituation.

conſtitute the banks of the river, are ſubject to frequent inundations in the Spring and Fall; and many of them retain ſo much moiſture throughout the year, as only to be fit for paſtures, and are never cultivated. You will readily, therefore, conceive their ſituation towards the end of Summer, when the putrid exhalations go on rapidly, and you will alſo anticipate a deſcription of thoſe Intermittent and Remittent Fevers which Marſh Miaſma ſo conſtantly produces. They are moſtly Quotidians or Tertians; Quartans are ſeen but ſeldom, but if not ſpeedily cured, are apt to continue twelve, eighteen months, or two years, eſpecially with poor people; and I have ſeen fat and hearty Children have it for years, without any apparent injury to their health, excepting for a few hours on the fit-day. Our Winters are commonly mild, excepting a few weeks about Chriſtmas, and though we may at other times have ſevere weather, it ſeldom continues long. The hard Froſts commence the laſt of December, and continue without much interruption all

January and part of February, when there are frequent changes, and often much warm moiſt weather, from which time I date the beginning of the Spring Complaints. They are commonly Pneumonic or Pleuritic attacks, accompanied with chills, nauſea, and bilious vomiting. The pain begins in the ſide, breaſt, or ſhoulder blade, and not unfrequently changes from one ſide to the other, or darts through from the breaſt to the ſhoulder. The chill is of ſhort duration, and ſucceeded by the Fever, with a pain in the head, back, and large joints. A frequent dry Cough teazes the Patient, and renders the pain more acute, increaſes with the approach of night, and cauſes that to be very diſtreſſing. The pulſe varies from 90 to 120, and at firſt is generally hard and full. Towards morning the Fever ſuffers ſome remiſſion, but by the middle of the day is higher than before. The firſt attack is attended with bilious vomitings, which exceedingly alarm the ſick; but if properly encouraged, relieve the ſtomach, and are ſeldom dangerous unleſs when injudiciouſly treated.

" Our moſt ſucceſsful Remedies in the Cure of this Complaint, are Bleeding, Bliſters, Laxatives, mild Diluents, and gentle Sudorifics. Early in the Diſeaſe we take away ten or twelve ounces of Blood, and if the pain is not removed, Cough continues dry, and pulſe hard, the ſame quantity is drawn before the Bliſter is applied, which is probably the ſame night or the next morning.

" The violence of the Inflammation, age and vigour of the Patient, and the nature of the Epidemic, govern the Lancet, for we frequently have a ſpecies of Synochus in the Spring eſpecially after a warm Winter, which requires great caution in Bleeding. I have ſeen many this year, with acute pains in the Head and ſhort Ribs, when the Pulſe was uncommonly low and ſoft at the commencement of the Diſeaſe. In ſuch caſes, Bliſters to the part were the only Remedies to be relied on, with Wine and Water for conſtant drink, and the Bark in quantity, as ſoon as the pain was removed. An Anodyne at night, after the Inflammation is abated, quiets the Cough, occaſions the Patient to reſt well, and with an Antimonial, diſpoſes to a free perſpiration. Since the Influenza prevailed here, I have learnt to uſe Opiates more freely in all Complaints attended with a Cough, after the Inflammation is removed, than I had before ventured to do. The conteſt, which has been ſo warmly ſupported by the partizans of Cullen and Brown, muſt be left to the deciſion of others; but I am fully perſuaded, that the Doctrines of the latter have tended materially to remove prejudices, and to introduce more liberally into practice, one of the moſt valuable aſſiſtants to the healing Art, though I have more than once witneſſed the improper uſe of it by his pupils; ſuch has been the caſe with many valuable Medicines, and it was from Goulard's extravagant recommendations of the Solutions of Lead that we became acquainted with their real virtues.

" THE Blacks are remarkably ſubject to inflammatory Complaints from their expoſure and deficiency of Cloathing ; and I have obſerved that they require the uſe of the Lancet with conſiderably more freedom than the Whites. They are accuſtomed to bleed for the moſt trifling Diſeaſes, and it is often difficult to perſuade them of their recovery from any diſorder without opening a vein. There are but few even of them, however, that would bear the loſs of forty-eight, or fifty-ſeven ounces, as mentioned by Cleghorn, though our diſeaſes correſpond very much with thoſe deſcribed by him ; and I conceive, that half the quantity he took away during the firſt twenty-four hours, with the timely application of Bliſters, will conquer moſt Pneumonic attacks with us, except in very particular conſtitutions.

" SOME Caſes of Phthiſis Pulmonalis occur generally in the Spring, for which I have endeavoured equally to avoid the weakening antiphlogiſtic, and the highly ſtimulating mode of treatment. It is unneceſſary to give a detail of practice in this Diſeaſe ; and I ſhall only obſerve, that in a few inſtances, conſiderable benefit is ſuppoſed to have been received from the uſe of a Swing, as recommended by Dr. Smyth, where the Patients were weak and much reduced, it was ſuſpended in the houſe, and convenient for uſe in all weather.

" As the Spring advances, various eruptive complaints appear, and among the Blacks Scrophulous Swellings inflame and ſuppurate every year. To palliate the Diſeaſe from ſeaſon to ſeaſon, and let the Conſtitution acquire vigour enough to conquer it, and the dangerous period of life has paſt, which ſeldom extends beyond twenty-five, is all I ever could accompliſh, and in ſome inſtances, I have been much perplexed to do that. Of late, the internal uſe of Blue Vitriol has been ſtrongly recommended by a famous empirick, and as I have at preſent ſome opportunities of trying it, I ſhall attend particularly to its adminiſtration and effects.

"The Cynanche Tonſilaris frequently occurs; for which ſtrong mercurial purges, aſſiſted by Bliſters, have ſucceeded better with me than any other Remedies. The Cynanche Maligna has alſo prevailed in ſome parts of the State, but I think it fortunate that it has not been my lot to engage it.

"The Meaſles, laſt year, added to the liſt of Epidemics, revived the old diſpute reſpecting the propriety of Bleeding for it; ſome caſes having terminated fatally after profuſe Bleeding, it was conſidered by many as a fatal practice, though I do not recollect my having had cauſe to repent moderate Bleeding in any inſtance, while the advantage in many was very apparent; and in ſome, they left ſo great inflammation on the Lungs, that repeated Venæſection was neceſſary.

“ The Months of June and July are the moſt healthy in the year, though they are often as hot, and ſometimes more ſo, than the ſucceeding. The Weather is then dry, and leſs liable to change than in Auguſt and September, when the rain commences, and ſudden variations take place. Intermittents ſeldom appear till after the tenth of Auguſt, and from that period to the ſame day in October, all Families on the Rivers and Creeks, have it conſtantly among them. The nocturnal Air at this time is to be cautiouſly avoided, and the ſlighteſt expoſure or irregularity, will endanger an attack by a Quotidian or Tertian. We conſider Madeira, Port Wine, and Porter, as the beſt preſervatives; and it is certain, that thoſe who make daily uſe of them in moderation, are not ſo often ſick, and with ſuch aſſiſtance, recover ſooneſt. The Fit, on the firſt evening of the attack, is commonly ſlight, and ſometimes with a Chill and Fever hardly perceptible, and an aching of the Bones, which is taken for Rheumatic. The next Fit comes on earlier in the day with more violent pains in the Joints, ſucceeded by a Chillineſs, as if ſtreams of cold Water were running down the Back; nor can any Warmth be excited until the reaction of the Syſtem takes place. It is a general obſervation, that the Ague has changed within a few years from violent Shaking to a ſmart Chill, and though I can remember to have ſeen the Teeth chatter, it is ſeldom thecaſe now. As the Fever riſes a Glow on the Surface is viſible, the Face begins to fluſh, and with that a Head-ach commences, which increaſes with the Fever, and continues as long as that laſts. The Pulſe, which during the cold Fit is weak and ſmall, riſes gradually to fulneſs and quickneſs; the Drought is conſiderable, and the Tongue and Mouth dry and parched. After a few hours a Sweat begins to break out, which gives much relief, and by the Morning

ing carries off the Fever, leaving the Body weak and feeble, the Tongue furred, with loſs of Appetite, and a bitter Taſte in the Mouth. As the cold Fit goes off, a Vomiting of Bile often takes place, and if properly encouraged, diſcharges the Morbid Contents of the Stomach, and removes the Sickneſs; for Dr. Moore* has well obſerved, that Vomiting is moſt effectually cured by Vomiting.

" THE Paroxyſms are nearly the ſame, whether they are Tertians, Quartans, or Quotidians, and the ſame treatment will generally effect the Cure of each.

" IF the Head-ach is violent, with a full and ſtrong Pulſe, eight or ten ounces of Blood are taken away at the Height of the Fever, and an Emetic, compoſed of Ipecacuanha and Tartar, is directed to be taken early in the Morning ſucceeding the Fit, and if it both vomits and purges well, the Bark is adminiſtered without delay, ſo as to get ſix or eight drams down before the next period of acceſſion. If it does not ſtop the next Fit, it ſo weakens it, that another ounce anſwers the purpoſe, and the uſe of it in ſmaller quantity for a few days reſtores health. If the Bark does not prove laxative, a purge ſhould be interpoſed, to prevent the accumulation of Bile in the Primæ Viæ, which will either occaſion the Bark to be rejected, or occaſion violent pain in the Stomach. In the Cure of Remittents, which are at preſent more common than formerly, we ſeldom wait for the Fever to go entirely off; but if the Bowels have been properly evacuated, and a general moiſture can be accompliſhed, I have given the Bark when the Pulſe was at 90° or 100°, and have found it to increaſe the Sweating, and thus have prevented the return of the Fever, which could not ſo eaſily have been done, if that Medicine had been delayed: I am, however, fully ſenſible that there are errors committed, in giving it haſtily before the Primæ Viæ have been ſufficiently cleanſed; and I have often ſeen this done effectually by an Emetic, when repeated Purgatives have failed. I have known Vomiting objected to by Phyſicians of reputation, as being an unnatural operation; but this only applies to Health, for a ſick Stomach voluntarily relieves itſelf. Among the lower claſs of people, with whom the Intermittent often continues twelve or eighteen months, and ſometimes for years, Abdominal Congeſtions, Ulcerated Legs, and Dropſical Swellings, are not unfrequently the conſequence. As the following caſe, which I attended laſt year, was from this cauſe, I ſhall take the liberty of concluding this letter with it, though it may be thought already too long. Having been often diſappointed in my expectations from Diuretics, the ſucceſs which attended the adminiſtration of Squills in this inſtance induced me to record it.

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* Medical Sketches.

"On the 6th of Auguſt, I was deſired to viſit two Girls, about three miles from town, whoſe Parents lived within half a mile of two

Mill Ponds. They both appeared to be in the laſt ſtage of the Dropſy, and one of them died a few days afterwards. The death of the oldeſt, (perhaps ſhe might be about twelve or thirteen years of age), appeared to be almoſt as certain, though it might not be ſo ſoon: She had been troubled with an Intermittent for nearly two years, which had left her about a month before in a ſtate of great debility. A ſhort time after the Fever ceaſed, the Swelling of her Abdomen was diſcovered, and was ſoon followed by an Anaſarca of all the lower parts of her Body, even as high as her Breaſts. When I was called in, her Legs were hard, tenſe, and cracked and ulcerated in ſeveral places, ſo as to make painful ſores. Her Breathing was laborious and difficult, and her Coughing almoſt conſtant. Her Face was alſo conſiderably ſwelled, and for ſeveral nights ſhe had been obliged to ſleep in an erect poſture. Her Abdomen was greatly diſtended, and an evident fluctuation of the water within, was to be felt. If ſhe laid down on her ſide for any time, it left the ſuperior parts, and all ſettled in thoſe that were loweſt.

“ HER appearance altogether was ſo unfavourable, that nothing but her youth afforded any proſpect of ſucceſs; and I undertook to adminiſter Medicines more for the ſatisfaction of the Patient, than from any hopes of my own.

“ AFTER trying ſeveral Remedies with little benefit, I was almoſt perſuaded it would be neceſſary to evacuate the water from her Abdomen by the Trocar; but was afraid, that at ſuch an advanced ſtage of the Diſeaſe, the operation might haſten her exit, inſtead of preventing it. In this ſituation I determined make the laſt effort, with Squills combined with Nitre, and gave it in the following manner:

R/. Scill. rad. ex ſiccat. ʒji.
Nitri. ʒj. Syrup. Simp. q. ſ.
Fiant pilulæ xxx. Cap. tres Mane et Veſpere.

" She began the uſe of them on Friday morning, and I did not ſee her again until Monday, when the good effect from them was ſurpriſingly great. She informed me that ſhe felt herſelf much better on Saturday, and reſted more comfortably that night than ſhe had for many nights before. On Sunday a conſiderable increaſe of urine was evident, and the Swelling of her Belly began to ſubſide. On Monday, I found the water almoſt entirely removed, and her Legs and Thighs ſo reduced, that ſhe could walk with eaſe, which before had been very painful. Her appetite was much increaſed, and ſhe expreſſed by the joy in her countenance, the relief ſhe had obtained, and the change from miſery and deſpair to eaſe, and the pleaſing, though unexpected proſpect of a ſpeedy recovery of Health. The Squill Pills were continued for a few days, which entirely carried off the water, and by the aſſiſtance of the Bark, and daily exerciſe, it was prevented from collecting again, and I heard no more of her complaint.

"I HAD forgot to mention, that her Parents were very poor, and in addition to the poverty of her Diet, ſhe had been much expoſed in all Weather, during the time of her having the Intermittent. It has been obſerved by ſome eminent Phyſicians, that the Diuretic effects of Squills are not ſenſible, unleſs there is ſome operation in the Stomach from them. Dr. Cullen in his laſt Edition of his Materia Medica, gives his opinion on the ſubject in the following words:

"THIS perhaps may be founded; but I underſtand it no otherwiſe than that ſome operation on the Stomach is a teſt, and a neceſſary teſt, of the Squills being in an active ſtate, in the ſame manner, as we are only certain of the activity of Mercurial Preparations when they have ſhewn ſome effect on the Mouth. In the preſent inſtance I attended particularly to their operation on the Stomach, but it was ſo ſlight, as not to give any uneaſineſs. There was a little Nauſea for a ſhort time after taking the morning doſe, but ſo inconſiderable as not to be noticed, until particular enquiries were made on the ſubject. If their Diuretic effects had not been ſo ſudden, I ſhould have increaſed the Doſe as far as the Stomach would have permitted, but from their neither Vomiting or Purging, they were more powerful Diuretics without weakening the Patient.

" In offering this imperfect anſwer to your Letter, my being unprepared at the time, and unable to pay that attention I could wiſh, muſt excuſe errors and defects, in which perſuaſion I have ventured to ſend it forward.

I am,
Your moſt obedient,
And very humble Servant,
JAMES LYONS.

HANOVER-TOWN, *May* 13, 1791.

"P. S. THERE is a fact ſo directly in proof of the pernicious effects of Marſh Miaſma, that I muſt beg leave to mention it; juſt above Hanover-Town is an extenſive piece of low Ground unreclaimed, and it has been long remarked, that the Ague and Fever appear ſooneſt, and are moſt violent every year, in thoſe families, which occupy the houſes neareſt to the Marſh, while others, living only a few hundred yards below, ſeem to eſcape with conſiderably leſs ſickneſs. In ſo ſmall a town it could hardly be ſuppoſed that the difference of ſituation would be ſo ſenſible; but it has been obſerved ſo often, that there can be no doubt of the truth of it.

J. L."

OBSERVATIONS *on the Diſeaſes of the Eaſtern Parts of Virginia, particularly* **Norfolk and the neighbouring Counties. Communicated by Dr.* TAYLOR, *and Dr.* HANSFORD, *of Norfolk, Auguſt* 10, 1791.

IN the inveſtigation of Endemic Diſeaſes, of their Cauſe, Progreſs, and Termination, it would appear, that an enquiry into the ſtate of the Atmoſphere at various Periods; the Situation of Places; the ſurrounding Productions of the Earth; the Rivers, Marſhes, Lakes, and even Inſects, ought to be added to the account. If the Limits of the Publication, for which theſe Pages are intended, would permit ſuch an Enquiry, we might eaſily deſcribe every thing but the Climate, which has been always ſo irregular, both with reſpect to Hot and Cold, Wet and Dry Seaſons, that were we to recount the Changes which have come immediately under our Obſervation, the Reader would ſuppoſe we were ſpeaking of ſeveral Countries ſituated under different parallels of Latitude. As we cannot enter fully into the ſubject, we ſhall only occaſionally mention the Seaſons and Changes of Weather, when they ſeem to relate to the ſubject we are treating of. If we were to attempt to account for the Diſeaſes, and their Varieties, from the Weather we might perhaps miſlead the Reader, as well as deceive ourſelves;—for the Science of Medicine is ſo young in this Country, that we have not the light of former Practitioners to guide us through the dark Labyrinth; too dark indeed, even where the ſtrongeſt rays of Human Wiſdom are thrown upon it. The Country we ſpeak of is low Land, moſtly within twelve feet of the level of the Sea, interſected in all directions with Salt-Creeks and Rivers, the Heads of which form Swamps and Marſhes, and Fenny Grounds covered with Water in wet Seaſons. Wherever it is not cultivated, the Land is covered with large

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* Norfolk, the moſt populous Town in Virginia, contains only about 6000 inhabitants.

Timber and thick Underwood. The vicinity of the Sea, and the Salt-Creeks and Rivers, occaſion a conſtant moiſture and warmth of the Atmoſphere, inſomuch, that although under the ſame Latitude a hundred miles up the Country, deep Snows and frozen Rivers are very common during the Winter, yet here we conſider ſuch occurrences as Phenomena; for theſe Reaſons, the Spring is very early uſhered in, ſometimes ſo early, that many Trees are in Bloom about the latter end of February; from this time, however, till the end of April we are ſubject to cold Rains, piercing Winds, and ſharp Froſts; it is at this Period only (if we except the Influenza) that any Inflammatory Diſeaſes ever appear among us; and theſe are confined to People who live expoſed to bleak Winds on the Banks of large Rivers, on the Cheſapeake, or on the Sea, or whoſe Occupations expoſe them to ſimilar Inconveniences of Situation. We may compriſe the whole of the Inflammatory Diſeaſes known here under the Terms Pleuriſy and Peripneumony;—when theſe attack ſtrong Plethoric habits, or healthy ſtrangers from the North, or from the Uplands, we obſerve nothing uncommon in the appearances of the Diſeaſe, neither does the mode of treatment require to be altered from the general Antiphlogiſtic Plan commonly laid down for the Cure. But when Perſons who have long been Reſidents in this part of the Country are the ſubjects of Pleuriſy or Peripneumony, we have always found the Lancet a very dangerous Remedy, and never uſe it but with extreme caution;—after the Emetics or Cathartics, we find it much ſafer to alleviate the painful Symptoms by the uſe of Opium, joined to powerful Diaphoretics, ſuch as Vin. Antimon. Tart. Emetic, Spt. Minder. Camphor, &c. with Expectorants, occaſionally Bliſters, partial application of Warm-baths, and if an irritated Stomach (a circumſtance we have frequently to contend with in many Diſeaſes) refuſes the Opium with Antimonial Preparations or Camphor, we never ſcruple to uſe it alone; and however extraordinary it may appear to ſome Practitioners, we never had any cauſe to ſuſpect it of doing an injury to full and ſtrong habits; though we confeſs, with thoſe of the latter deſcription, it does not ſeem to produce the deſired effect ſo uniformly as we could wiſh. Theſe Fevers, like almoſt all others in this Climate, uniformly put on the appearance of an Intermittent after the fifth day, or as ſoon as the Expectoration is complete; in many therefore the Bark becomes neceſſary at the cloſe of the Diſeaſe. Inflammatory Diſeaſes are ſeldom fatal if thus managed, and ſcarce ever terminate in Phthiſis Pulmonalis; this latter indeed ſeldom originates here.

"We have a Root for which we do not remember any Botanical name, diſtinguiſhed under the title of Pleuriſy Root; this many of our Country Practitioners aſſert—to be of great efficacy in Inflammatory Diſeaſes; and we think it deſerves ſome attention, and frequently uſe it joined to Seneka in decoction.

Seneca,

Seneka, either with or without the other, produces a gentle Diarrhœa, which manifeſtly relieves the Patient without checking the Expectoration.

" About the middle of May, the Weather becomes ſultry, with ſome cool days, occaſioned by the change of Winds to the North and North-Eaſt: At this period all the Diſeaſes of the Winter begin to decline, and the whole Country is univerſally healthy (except here and there a trifling Vernal Intermittent which ſcarce requires the application of Medicine) till the middle or latter end of June, when Diarrhœas and Dyſenteries appear among the Children, moſtly with thoſe under two years old, though not abſolutely confined to ſuch.

" In ſome years the Diarrhœa is almoſt univerſal, attended for the moſt part with an irritation of the Stomach, and an irregular Fever of the Intermittent kind: After the proper Evacuations, we apply Bark in large quantities, joined to the moſt approved aſtringents and Anodynes; Gum Kino, Opium, Spec. e Scord. &c. and when the Stomach will not bear a ſufficient quantity of Bark, we throw it up in Glyſters repeatedly, for many days together, and this we have learnt, by experience, to be the only mode which can be depended on.

“ THE Diarrhœa of many of theſe Children reſiſt every medical effort to cure them; and theſe Children gradually decline in Fleſh, and contract a Chronic Apthæ, which viſibly extends throughout the whole Alimentary Canal.

“ WE have ſeen the Diſeaſe in this State in almoſt every large town we are acquainted with;——nor do we know of any certain Cure; many have recommended the uſe of Alum, Spec. e. Scord. with the Gum Kino, and have aſſerted, that great relief has been found therefrom: Others have ventured the uſe of a Solution of Vitriol.

Cærul. but we have never attempted this. It would appear that a Change of Air to a more Northern and cold Climate, or to Places where the uſe of Chalybeate Waters can be had, would be adviſeable; many have recovered by ſuch means, but we have alſo ſeen many recover, who were reduced perfectly to Skeletons, without removing at all, or making uſe of Medicines of any kind.

" DYSENTERIES in Children are not ſo difficult to cure; the common means, ſuch as Ipecacuan. Vitr. Cerat. Antimon. Ol. Ricin. Rhubarb. Simaroub. &c. ſeldom fail to remove the Diſeaſe if judiciouſly adminiſtered.

" AT ſome Periods we have a Dyſentery among the Adults, which may be called Epidemic; but as this differs in no degree from thoſe which are common to warm Climates, it is entirely unneceſſary to ſay more about it, except that in the cure it does not require thoſe large Evacuations previous to adminiſtering Aſtringents and Anodynes, which we have ſeen uſed by ſome Practitioners in other Countries, and it will never admit of the Lancet.

" In July, the Heat of the Weather increaſes; but during the whole of this Month and the greateſt part of Auguſt, there are no Diſeaſes at all, at leaſt none which can be called Epidemic. On the approach of the Autumnal Months, Intermittents begin to appear throughout the Country.

" It is not our Province here to recapitulate the ſeveral Opinions concerning the Cauſe and Nature of thoſe Fevers, nor yet to divide them into numberleſs Species and Genera. We have never been able to diſtinguiſh any other difference in the Nature of Intermittents, than that which Conſtitution, Climate, and Manner of Living give riſe to; thoſe Cauſes will divide them into Perfect, Imperfect, or Remittent: The ſeveral Terminations of them which we frequently obſerve into Continued, Putrid, or Nervous Fevers, will be found to ariſe from the ſame Cauſes, and under thoſe ſimple terms we ſhall proceed to treat of Intermittents in all their Stages.

" THOSE which occur earlieſt in the Seaſon are uniformly of the mildeſt kind, and yield ſooneſt to the proper Medicines. Among the Labouring and Temperate Claſs of our Citizens, whoſe Diet is ſimple, whoſe Hours are regular, and whoſe uſe of Spirituous Liquors is ſparing, thoſe Fevers are perfect Intermittents, generally of the Tertian kind, and though not confined particularly to any age or ſex, yet are moſt frequent among the younger claſs, the Females and the Children; they are in wet Seaſons almoſt general among thoſe of the latter deſcription in country places, and in low fenny ground. They yield immediately to proper Evacuations, and the uſe of the Peruvian Bark, and ſeldom outlaſt the Autumnal Months, even without the aſſiſtance of any Art: Sometimes, however, in relaxed Habits, they terminate in Jaundice, enlarged Spleen, Anaſarca, and Death. We ſhall not be particular upon this ſort of Intermittents, becauſe they are in nothing different from thoſe which prevail in all countries ſimilarly ſituated.

" AMONG that Claſs of Citizens, whoſe hours are more irregular, and whoſe uſe of Wine and luxurious Food is more frequent, thoſe Fevers, though ſtill retaining the Intermittent, Quotidian, and Tertian Form, are nevertheleſs imperfectly ſo; a great degree of Heat, quickneſs of Pulſe, and Debility remain during the whole time, which may be called Intermiſſion, with partial or total Loſs of Appetite. Here Intermittents begin to put on an appearance, which we think very different from thoſe of any other Country; they are preceded by a Chillineſs, which commonly ſeizes the Patient when he thinks himſelf in perfect Health. Head-ach, great Thirſt and Heat ſoon follow, in many inſtances Delirium, Vomiting, Diarrhœa, and large Diſcharges of Bile;—about the fifth, ſeventh, or twelfth hour the Patient is relieved by profuſe Sweat, which continues with the aforementioned Heat, Quickneſs of Pulſe, and Debility, till the next Paroxyſm. Theſe are generally of the Tertian kind, and return regularly if no Medicine is uſed, from nine to fourteen days, when they will commonly terminate altogether, or degenerate into a ſlight Quotidian, which allows the Patient to walk about, and when the cold Weather approaches for the moſt part leave him altogether.

"People of the latter deſcription are more rarely the ſubjects of Intermittent Fevers than thoſe who live in a plain manner; and if proper Evacuations are made, and the Bark adminiſtered with perſeverance, and attention to the Stomach and firſt Paſſages, the

Diſeaſe may almoſt certainly be cured after the third Paroxiſm, and very often even a ſecond is prevented.

" We have always experienced Cathartics to be the ſafeſt and moſt effectual Evacuations in thoſe kinds of Fevers; and if the Patient has an irritated Stomach with Coſtiveneſs, Emetics are not only inadequate and unneceſſary but dangerous. We frequently find great difficulty in making the Stomach bear a ſufficient quantity of Cathartic Medicines to procure the deſired Evacuations: when this is the caſe, Laudanum and Aqua Menthæ, or Extract. Thebaic. are adminiſtered an hour or two before the Purge, which generally cauſes the latter to remain, and though the Opiate retards the operation, it does not ultimately prevent it, or render it leſs powerful. After this we proceed to the uſe of the Bark during the Intermiſſions, and without regard to meaſure, give it as profuſely as the Stomach will permit, and in the moſt powerful form, beginning with the Powder, and occaſionally uſing the Decoction, the Extract, and cold Infuſion. It too often happens, that the Stomach will not bear the Medicine at all, in which caſe we give large quantities of the Decoction or Infuſion by Clyſters; and we can venture to aſſert, when thoſe Clyſters are retained in ſufficient Quantity, the effect is equal to that produced by any other mode of adminiſtering it. During the Paroxyſm, we find great Relief procured, by making the Patient drink plentifully of a ſtrong Infuſion of Serpent. Virgin. to which, when the Symptoms are very painful, we add Laudanum in ſufficient quantity to procure the Patient perfect eaſe. Theſe laſt Medicines, particularly the Serpent. have a viſible power of ſhortening the Paroxyſm, and will rarely diſagree with the Stomach. The uſe of Opium, its ſafety and advantage in thoſe caſes, we preſume to be well known; therefore we ſhall decline making any Obſervations upon it, except that we have not found it (as has been aſſerted) capable *per ſe*, of curing

Intermittents. It has been adviſed to give it in conjunction with the ſeveral Preparations of Bark, where the irritable ſtate of the Stomach will not bear the Cort. alone. This expedient will ſucceed, if the quantity from time to time be increaſed, and is often uſed with ſucceſs, though it invariably occaſions great diſtreſs to the Patient when the Fever leaves him, by inducing an Hyſterical or Hypochondriacal ſenſation, which if it does not amount to pain, the Patient will tell you his feelings are far worſe than if it did.

" The uſe of this Medicine to prevent the paſſage of the Bark by ſtool is known to every one; but we think the Gum. Kino for general uſe much better, and more permanent in its effects.

" At the acceſſion of thoſe Fevers there is frequently a full hard Pulſe, inflamed Eyes, a ſenſe of fullneſs in the Breaſt, and ſometimes a ſharp Pain in the Side, reſembling that which attends inflammatory Fevers. Theſe circumſtances have often led Practitioners, and others who are unacquainted with the Climate, to bleed the Patient; an expedient, which if it does not produce a tendency to Putrefaction, invariably fixes the Fever ſo firmly, that the Cure becomes afterwards exceedingly difficult.

" When no Medicines are given at all, we have obſerved before, that the Fever for the moſt part will decline of itſelf on the ninth or fourteenth day, or degenerate into a ſlight Quotidian, and ſometimes a Quartan; this is, however, not always the caſe.

" If no Medicine has been given, or if the Diſeaſe has been improperly treated by Bleeding, or by too great Evacuations, otherwiſe by forbidding the uſe of Wine, &c. the Fever ſometimes becomes Remittent.

" In the town we have alſo many of theſe

Fevers, which though clearly belonging to the Claſs of Intermittents, are Aborigine Remittents; becauſe, there is an evident tendency to decline of the Fever at a particular time, once in twenty-four hours, every other day, or every fourth day, and all the Diagnoſtic Symptoms are preciſely the ſame as they are in a diſtinct Intermittent, making allowance for Age, Sex, and Conſtitution; nor do the means of Cure differ, though variouſly applied.

" THAT Species of Remittent which ariſes from neglect, or improper treatment of Intermittents (except that Evacuations ſhould be cautiouſly repeated) may be treated in the ſame manner with thoſe we are about to deſcribe.

" IN the Town, throughout the Months of September and October, many of the Inhabitants are ſeized with Fevers, which begin by Chillineſs, a ſenſe of fulneſs in the

Stomach, followed by Pains throughout the Limbs, Neck, Back, and Hips, great Heat and proſtration of Strength, which proceed and terminate as before deſcribed, under the Term of imperfect Intermittents. But others who are attacked in the ſame manner, particularly Robuſt and Plethoric Habits, or thoſe who are accuſtomed to drink a great deal of Wine, Porter, &c. and take plentifully of luxurious Food, have a greater ſenſe of Heat, more Pain in the Limbs, and much more Oppreſſion and Debility—are extremely reſtleſs, ſometimes with Delirium, and great Thirſt; and when the Period of Intermiſſion of the Fever ſhould arrive, viz. the ninth or twelfth hour, are but partially relieved, that is, the ſenſe of Heat is not ſo great, the Delirium and Reſtleſſneſs are ſomewhat abated, and there are ſome few ſtrokes difference in the Pulſe; and when there is Nauſea and Vomiting, thoſe likewiſe partly ceaſe to torment the Patient, but the proſtration of Strength, Pain in the Limbs, &c. with the dry Skin, ſtill remain: Here the Evacuation by Cathartics ſhould be attempted without delay, and the Period of the Remiſſion (which though obſcure, laſts ſeveral hours) employed in adminiſtering Bark in every poſſible form, without regard to the Quickneſs of Pulſe and dry Skin; Wine ſhould be given in large quantities, and on the return of of the Paroxyſm, the Patient ſhould drink profuſely of an Infuſion of Serpentar. with Wine.

" When this Plan is followed with perſeverance, the Patient almoſt always recovers, though the Paroxyſm, or properly ſpeaking, the violent hours of the Fever, may return once or twice; but if this is neglected, after the ſecond return, the Fever puts on a malignant and putrid Type, and often ends in Death.

" We have ſometimes found it impracticable to make the Patient keep the Bark in any form, or by any mode of giving it; when this is the caſe, the Diſeaſe is always dangerous, and the only Expedient we have left is the uſe of Wine and Serpentar. and we have ſo many times experienced the advantage of this laſt Medicine, by giving it in large quantity, that we cannot help earneſtly recommending it to the notice of every Practitioner.

" It is a Medicine, though of known efficacy, very much neglected, at leaſt the proper adminiſtration of it; like the Bark, it cannot be given in too large a quantity, when the Stomach will bear it. The Fevers of the latter deſcription are leſs common than the others.

" When the Diſeaſe begins to yield to the Medicine, a profuſe Sweat comes on; the Pulſe grows full, ſlow, and ſoft; the ſenſe of Heat and Pain in the Limbs, Back, Hips, and Neck abate and gradually ſubſide; the Patient has a deſire to eat, and in a few day he feels nothing but a Debility, which is far from being ſo great as the violence of the Diſeaſe would give cauſe to ſuſpect, and a very little time reſtores him to perfect health and vigour.

" When it is about to terminate unfavourably, there is an increaſed irritation of the Stomach, with vomiting of Cyſtic Bile, mixed with tough Mucus, attended in ſome caſes with Diarrhœa; the Pulſe grows ſmaller, quicker, and intermits, or rather ſeems at times to retreat from the Finger while feeling it; the Countenance falls, the Eyes become gloſſy, the Tongue black and dry, the Teeth cemented over with a black mucilaginous ſubſtance, cold Extremities, and Death; the Pulſe, however, is never to be depended upon in the termination of thoſe Fevers; it is ſometimes ſo hard, full, and regular, even at the moment that every other Symptom evinces the approach of Death, that inexperienced

Practitioners would be often induced to bleed or evacuate when the Patient is expiring.

" When continued Fevers from Intermittents take place, they are generally confined to relaxed, debilitated, or young habits; they are far from being common with us, and as in every other Country, they either terminate on the twenty-firſt and thirty-firſt day, or lengthen out into what are called Nervous Fevers, we ſhall neither treat of this ſtage of the Diſorder, or pretend to point out a mode of cure, for what ever may be the prediſpoſing Cauſe, the Diſeaſe is invariably the ſame, and requires the ſame mode of treatment in every country. We muſt, however, take notice of one effect which ſome Intermittents produce, viz. A Debility or Affection of the Optic Nerve, ſo as to render the Patient perfectly blind, till the Bark and other Tonics, have removed the Fever, when thoſe Patients recover their Sight with Health.

"In the Autumn of Eighty-nine, the Influenza made its appearance here, as it did throughout the Continent a little before and after that time, We ſhould not have taken notice of this Diſeaſe, which has been at times common to various parts of the World, if we had not obſerved ſomething ſingular in its progreſs through this Part of the Country.

"During the whole month of Auguſt in that year, the Weather was remarkably cool and pleaſant, with the Wind from the North-Weſt to the North-Eaſt, and continued ſo with ſome little intervals of South Winds and moderate Heat till the laſt of September, when the Influenza began to appear, and from the time theſe Winds ſprung up we had no Intermittents as in former and ſucceeding years.

"The Influenza though univerſal, ſcarce one in a thouſand eſcaping it, was mild, and attended with a ſlight Fever, only ſome few inſtances excepted where Pleuriſy and Peripneumony took place: two or three only of thoſe Died, more, we believe, from improper management than from the Malignity of the Diſeaſe itſelf, moſt of thoſe to whom it had proved fatal being profuſely bled and evacuated. We only recollect one inſtance of any perſon, who, in conſequence of this Diſeaſe, afterwards died with Phthiſis Pulmonalis; a circumſtance which has frequently happened in other parts of Virginia and to the North. Notwithſtanding this Epidemic was viſibly of an inflammatory kind, it would not, with us, admit of what is called the antiphlogiſtic plan; and we are authorized to ſay this, becauſe in purſuing a middle way, that is, by moderate evacuations and Diaphoretics without bleeding, and afterwards a free uſe of the Bark, we have loſt none of thoſe Patients whom we had the management of from the beginning. An inflammatory Diſorder ſimilar to this, and by ſome called by the ſame name, again appeared, beginning in the Winter 1790. This was generally attended with Symptoms of Inflammation conſiderably worſe than what we have been accuſtomed to call the original Influenza, neverthelefs, we could not find upon trial that any advantage was derived from the Lancet. This complaint was much more fatal than the former, and often reſiſted every application for relief. In the latter end of the Winter 1784, we had a ſpecies of Malignant Angina which was Epidemic and contagious; and although we have never experienced any thing ſimilar to it ſince, or any tradition of its having happened in this Country, yet we think we have both ſeen and read of the ſame Diſeaſe elſewhere. If the manner in which we have in ſeveral places recommended the uſe of the Bark ſhould appear extraordinary, we have only to beg the Reader to rely upon our words for the ſucceſs of ſuch Practice, which we aſſure him a very long courſe of Experience taught us not only to be beneficial, but abſolutely free from danger in our Climate at leaſt. We have had reaſon to think (tho' we will not venture to give it as a poſitive fact), that the Peruvian Bark is conſiderably leſs active in the Cure of Intermittents, in Conſtitutions which have been long accuſtomed to the free uſe of Wine, ardent Spirits, and luxurious food; even where ſuch Conſtitutions have not been viſibly Impaired, or Debilitated by ſuch habits. If this be true, Wine and ardent Spirits, as has been obſerved by many Practitioners, poſſeſs a conſiderable ſhare of the Specific virtues of Bark. This laſt, we have pretty well aſcertained, will not prevent what it will Cure; that is, the conſtant uſe of it will not preſerve a Perſon from the attack of an Intermittent, though it will afterwards remove it, but muſt be taken in much larger Quantities than would have been neceſſary if the Habit had not been before accuſtomed to it; and if Wine and ardent Spirits poſſeſs any of its Specific Virtues, the habitual application of thoſe to the Conſtitution may leſſen the power of the Bark, in the ſame manner as if itſelf had been conſtantly taken. We offer this as a mere matter of opinion, which cannot be thought extraordinary, if we may reaſon from Analogy and compare the action of Opium, and many other Medicines, which gradually loſe their power by repeated application.

A SKETCH *of the* SITUATION, CLIMATE, *and* DISEASES *of* NORTH-CAROLINA.

" THIS State, (bounded North by Virginia, Eaſt by the Atlantic Ocean; South by South-Carolina and Georgia; and Weſt by the Miſſiſipi,) is ſituated between the 34° and 36° 30′ North Latitude. It is 758 Miles in length, and about 110 in breadth

It is plentifully ſupplied with Rivers, Bays, Inlets, Moraſſes and Swamps; it is but thinly ſettled, and indifferently cultivated in proportion to its extent. There is one Swamp in this State, called the Diſmal Swamp, which extends over a large tract of Country, between Pamlico and Albemarle Sounds; and another North of Edentown, which lies partly in this State and partly in Virginia. This laſt tract of Swamp or Marſh Ground contains upwards of 140,000 Acres.

"NEWBERN, the largeſt Town in this State, contains only about 400 houſes, all built of Wood; and ſtands on a flat Sandy point of Land formed by the Confluence of the Rivers Neus and Trent.

"NORTH-CAROLINA, in its whole breadth for the extent of 60 Miles from the Sea, is a dead level. A great proportion of this tract is a barren Foreſt. On the Banks of ſome of the Rivers, the land is fertile and good. Interſperſed through the other parts, are glades of rich Swamp, and ridges of Oakland of a black fertile Soil. The Sea Coaſt, the Sounds, Inlets, and lower parts of the Rivers, have uniformly a muddy ſoft bottom.

"About 80 or 90 Miles to the Weſtward of the Atlantic, this State begins to ſwell into Hills which increaſe in ſize, and are more mixed with ſtones, alſo of increaſed magnitude the farther we proceed in that direction. The Soil in theſe parts is of reddiſh Clay and Loam, ſtrong and fertile; the Woods leſs intermingled with Pines and more with Oak and Hickory; and the Water is every where excellent, running in a profuſion of clear and refreſhing ſtreams.

" THE Country and Climate to the Weſtward is in general healthy, the low Grounds along the Rivers alone being otherwiſe, particularly thoſe of the Roanoak, occaſioned by exhalations ariſing from the damp Soil, ſtagnated Waters, and by the putreſcent particles with which the Atmoſphere is replete, whoſe free circulation and purification is prevented in ſuch ſituations, by lofty thick Woods, impervious to the Suns rays, under which a diſmal Gloom for ever dwells.

" IN ſuch ſituations we find Intermittents and Remittents, the principal Endemial Diſeaſes of this State, inſomuch that even in the Winter Seaſon we find that moſt of the Complaints which begin with Inflammatory Symptoms, are changed in the courſe of a few days into one or other of theſe.

"The Winters of this State, are more pleaſant and agreeable than can well be conceived; they are neither ſo Hot as to incommode, nor ſo Cold as to be diſagreeable. And for the moſt part, the Weather is Clear, Bright, and Serene; and the Ground (where fertile) is covered with delightful verdure. For here all the Inclemency of the Weather is in the Summer. At this Seaſon, the intenſe Heat and the ſcorching rays of the Sun are almoſt intolerable; and multitudes of troubleſome Flies, Muſkittoes, and other Inſects and Reptiles, continually infeſt and prey upon every Living Creature in the Fields and Woods, ſucking their Blood, and giving continual torment both Day and Night; ſo that every kind of Beaſt becomes miſerably Lean and Weak, while this Seaſon laſts. Even to

Man, with all his reſources and advantages, the Heat then becomes intolerable, nor can he find any ſhelter or defence againſt the aſſaults of theſe tormenting Inſects, and venemous Reptiles, which infeſt the Air and Earth.

" BOTH Rice and Indigo are cultivated on the low wet Grounds; theſe increaſe the unwholeſomeneſs of the Air, becauſe the Quantity of Water which they require for their ſupport becomes ſtagnant in many places. The Indigo requires a great deal of Water in its Manufacture, and ſoon becomes putrid in this ſultry Climate; in this condition it becomes extremely offenſive and inſalubrious; the rotten Indigo plant is often hawled out, and ſpread over the Fields to manure the Grounds, and becomes abominably noiſome, rendering the Atmoſphere for ſome diſtance abſolutely deleterious, and frequently almoſt peſtilential.

"DURING the latter part of Summer and the beginning of Autumn, putrid and noxious effluvia riſe in very groſs and thick vapours from the valleys, from ſtagnant and ſhallow pools, or fens, eſpecially after heavy ſhowers, and the laſting and exceſſive heats which ſucceeds ſuch rains.

"THE dews are likewiſe near the ſea-coaſt very copious in the beginning of Autumn, in a ſtill evening and in the night, and the whole country is covered with a thick fog till after ſeven o'clock in the morning.

"ALONG the Sea coaſt, the Eaſt Winds are the cooleſt in Summer, and the warmeſt in Winter." (Winds have a demonſtrable influence on the temperature of the Atmoſphere; and ſince theſe muſt, like all the other phenomena of nature, be governed by fixed and determinate laws, they deſerve inveſtigation.) Unuſual cold happens either in the Summer or in the Winter ſeaſon; the circumſtances which render Summers leſs warm than uſual are pretty obvious; for the diminution of heat may ariſe either from a long continuance of Eaſterly or Northerly Winds, or from frequent and heavy Rains, which are followed by great evaporation; or from a long continuance of cloudy weather which intercepts the Sun's rays, and prevents the Earth from abſorbing them.

The causes of unuſual cold in Winter, in this Climate, are of more difficult inveſtigation. Thoſe beſt aſcertained, are, 1ſt. Unuſual cold in the preceding Summer: For, as the Winter's heat is in a great meaſure derived from the Earth, if this be deprived of its uſual ſtore of heat, the want of it muſt be perceived the enſuing Winter. 2d. Heavy Rains, followed by Weſterly or Northerly winds; this is owing to the powerful evaporation promoted by theſe dry Winds.

DISEASES.

THE Climate of this State ſo nearly reſembles that of South-Carolina, that I ſhall omit giving any farther deſcription of it here, and ſhall only enumerate ſuch Diſeaſes as are moſt prevalent. Dr. Smith informs me, that, " Eaſt of the Mountains, a ſpurious kind of Pleuriſy, accompanied with profuſe expectoration of a thin gleety Mucus, is the moſt prevalent complaint in the Winter and Spring ſeaſons; the Pulſe, in this Diſeaſe, is more frequent, but never ſo hard, full, or ſtrong as in the true Pleuriſy; the inflammatory ſymptoms are obſerved to ſubſide much earlier, and are very apt to be ſucceeded by ſymptoms reſembling thoſe of the Typhus, or rather of the Remitting Fever.

" MODERATE bleeding, at the commencement of the Fever, is generally of ſervice, but a repetition is ſeldom found ſalutary;

and copious bleeding has invariably occaſioned ſuch a ſtate of debility in a number of caſes in which I have employed it, miſled by ſervilely copying the practice of Sydenham, and the Lectures of a celebrated foreign Profeſſor, that I am now always moderate in the quantity I direct to be taken away." But mild Emetics, and eſpecially nauſeating doſes of Antimonials with moderate purging, and the early application of Bliſters to the Thorax, or back, are the remedies which I have found moſt generally beneficial.

"I HAVE alſo given Opium, combined with a little Tartar Emetic, or Antimonial Wine, with great apparent good effect at bed-time, as ſoon as the Phlogiſtic Diatheſis had conſiderably abated.

"THESE kind of Pleuriſies are commonly brought on by intemperance and imprudent expoſure to the Weather, which is very fluctuating during the Winter, and eſpecially towards the approach of Spring. Were the Inhabitants more cautious and attentive to theſe circumſtances, they might in general eſcape the danger of this Diſeaſe. I have found the uſe of Flannel next to the ſkin an excellent prophylactic againſt the Diſeaſes of the Winter and Spring ſeaſon. I believe the Weſtern and Hilly parts of this State are as healthful as any part of the world, and I am ſure they are as pleaſant in reſpect to Weather—But in the flat Country, in many parts of which there are whole Lakes of Stagnant Water conſtantly in a ſtate of putrefaction, the inhabitants are ſadly afflicted with Diſeaſe; particularly with Intermittent and Remittent Fevers, frequently accompanied with very extraordinary ſymptoms of debility, and bilious diſcharges, and often with Coma reſembling the Apoplexy. Our principal remedies for theſe are Bark, Snakeroot, and ardent Spirits diluted with water; and notwithſtanding the many Satires which have of late been written againſt Rum, I think it has been the ſalvation of multitudes in this Climate; an infuſion of Calamus, Aromaticus, Snakeroot, and the bark of our live Oak is a Catholicon for the Ague among our Rice Planters.

" THE countenances of the generality of the natives of this part of the State where I reſide are pale and ſallow. This appears to be occaſioned by the exceſſive ſecretion of Bile, peculiar to warm Climates, and to Aguiſh diſorders."

" IN the language of Armſtrong, I may truly ſay—

" Here on a ruſtic throne of dewy turf,
With baneful fogs her aching temples bound,
Preſides Quotidiana; a ſluggiſh Fiend,
Begot by Eurus, when by brutal force
He embrac'd the ſickly Naiad of the Fens.
From ſuch a mixture ſprung, this fitful peſt,
With feveriſh blaſts ſubdues the ſick'ning land;
Cold tremors come, with mighty love of reſt,
Convulſive yawnings, laſſitude and pains,

That ſting the burden'd brows, fatigue the loins,
And rack the joints, and every torpid limb;
Then parching heat ſucceeds, till copious ſweats
O'erflow: A ſhort relief from former ills.
Beneath repeated ſhocks the wretches pine,
The vigour ſinks, the habit melts away,
The chearful, pure and animated bloom
Dies from the face, with ſqualid Atrophy
Devour'd, in ſallow melancholy clad;
And oft the Sorcereſs, in her ſated wrath,
Reſigns them to the Furies of her train,
The bloated Hydrops, and the yellow Fiend,
Ting'd with her own accumulated gall."

EXTRACT *of a* LETTER *from* Dr. JOSEPH MILLER, dated Waſhington, on Tar River, Auguſt 17th, 1791.

" CHILDREN are aſtoniſhingly ſubject to Worms in all the Towns in the low Country, and as far as I can learn in every Town to the Southward—The Hydrocephalus alſo occurs more frequently than is commonly ſuppoſed. I have never had an opportunity of opening any perſon who died of this Diſeaſe;

eaſe; but from the beſt accounts which have been recorded, I am convinced that multitudes of thoſe who are thought to die of Worm Fevers, die of the Hydrocephalus. I am ſo fully perſuaded of this, that I make it a rule always to compare the Diagnoſtic Symptoms of the one with thoſe of the other before I attempt to preſcribe; but as there are ſome Symptoms common to both, I am often at a loſs—When the Patient has a dilatation of the pupil and convulſive motion of the Eye-lids, and ſquinting without an affection of the limbs, or frothing at the mouth, there can be little doubt that the Diſeaſe depends upon effuſion or collection of Water within the Ventricles of the Brain; and more eſpecially when the Patient often puts his hand to the head and ſhrieks out, or complains of pain there. But as the Patient grinds his teeth, ſhrieks out, and has a very irregular Fever in conſequence of the irritation occaſioned by Worms, eſpecially when previouſly reduced by debilitating cauſes, I think it is a very difficult point to diſtinguiſh one Diſeaſe from the other.

" The caſes of Hydrocephalus which I have taken particular notice of, began like irregular Remittents, and generally continued a Week or more before any Comatoſe Symptoms, Dilatations of the Pupils, Strabiſmus, or Spſams, came on ; and before the deceaſe of the Patient, a Paralyſis of one ſide uniformly took place : The Stomach and Bowels alſo ſeemed to loſe their ſenſibility early in the complaint, which is ſeldom or never the caſe from Worms.

" As I have been unlucky in my preſcriptions and treatment of the Hydrocephalus, I will not trouble you with a detail of particulars; but whenever I have been able to aſcertain the preſence of Worms, I have ſeldom failed removing them, by exhibiting a draught of a ſtrong infuſion of the Anthelmia, or Caryophyllum Indicum, night and morning for three or four days, and afterwards a doſe of Mercurius Dulcis and Rubarb, proportionate to the Patients age. If any ſigns of Worms ſtill remain, the ſame remedy ought to be repeated after an interval of three or four days. The ſucceſs of this method is almoſt incredible—I have never yet ſeen an inſtance where it was not effectual, whether the Patient had a Fever or not, when the principal Symptoms were manifeſtly occaſioned by Worms. I generally direct One Drachm of the Roots, Stalks and Leaves to be infuſed four hours in half a pint of Boiling Water, and as much of it to be given with the addition of a little Milk and Sugar, as the Patient has been accuſtomed to take of Tea or Coffee for Breakfaſt and Supper. The day the Mercurial purge is taken, the Patient is prohibited cold drinks and ſolid Food. To confirm the cure, Huxham's Tincture is directed to be taken before Dinner, and a little Wine and Water made uſe of for common drink.

"I HAVE tried Bliſters frequently to the Occiput, Neck, and behind the Ears, in ſeveral caſes of Hydrocephalus, and in every ſtage, and have raiſed a moderate Ptyaliſm, by the application of Mercurial Ointment to the body without ſucceſs; and yet I have no doubt of that method, with the addition of a Cordial Regimen, and the frequent application of hot Pediluvium, being the only one which has any probability of ever being of real ſervice. This opinion I ground on the ſucceſs of others, as well as on the Pathology."

A SKETCH *of the* SITUATION, CLIMATE, *and* DISEASES *of* SOUTH-CAROLINA.

[*Extract of a Letter from the Honorable* DAVID RAMSAY, *Eſq. dated Charleſton, March* 17, 1791.

" *I HAVE not leiſure ſufficient to do juſtice to the ſubject you requeſt, but this will be no diſappointment as more has been written towards elucidating the Medical Hiſtory of South-Carolina, than of almoſt any other State. I refer particularly to Dr. Lining's and Dr. Chalmer's Publications. I think the latter has exaggerated the heat of our Climate, and given a Gloomy repreſentation of its Diſeaſes, but that his Writings afford good Materials for your Work.*"]

THIS State is in length about 200 miles, and in breadth 125, ſituate between 32 and 35 degrees of North Latitude.

" BOUNDED Eaſt by the Atlantic Ocean, North, by North-Carolina, Southweſt and

South, by Savannah River, which divides it from Georgia.

“ The coaſt of this Country is ſo low and flat, that it cannot be ſeen at the diſtance of more than Seven Leagues, but about 60 miles from the Shore, the land becomes more unequal, and conſiſts of Spacious levels, interſperſed with eaſy riſings, which gradually advancing in height towards the Weſt, terminate in a range of Lofty Mountains, that form, as it were, a chain which runs throughout the Continent of North-America, at the diſtance of about 300 Miles from the Sea-Coaſt.”

From the Eaſt ſides of theſe Mountains, many Rivers ariſe; and as all the Waters of the adjacent Lands fall into them, theſe Rivers are liable to exceſſive inundations; ſwelling ſometimes more than 20 feet in height in the ſpace of 12 hours, particularly in thoſe places where the Channels are narrow, and the Banks ſufficiently high to confine the

Waters. But where the Land is lower, the Waters overflow and ſpread themſelves many miles beyond their ordinary limits; and thus the low lands often continue deluged for many weeks.

THESE land-floods are owing either to the melting of Snow on the Mountains, or the falling of heavy Rains in the interior parts of the Country, and they ſometimes happen both in the Spring and Autumn, but moſt frequently in the latter Seaſon. Some years, however, (though theſe are rare) the Rivers do not ſwell at all, or in ſo ſmall a degree as not to occaſion any damage.

WHEN ſuch inundations happen in the Spring, the Planters can not ſow their grain; and in Autumn the produce of their lands is either ſwept away by the Stream, or ſo rotted, that little or nothing can be reaped for that year: However ſo prolific are thoſe lands, that if one Crop is loſt out of three, the Planters are ſufficiently recompenſed.

"A GREAT part of the Rice Plantations are occaſionally overflowed by art, for the purpoſe of promoting the growth of the Rice, which is properly a Water-plant, at leaſt when of a proper age it thrives beſt in Water. This has a ſalutary effect, as it prevents the generation of putrid exhalations, the effect of ſtagnant, confined, and motionleſs waters when operated on by heat. In order to prepare ſuch Lands, Dams, Banks and Drains are neceſſary.

"THREE days before, and as many after every change and full of the Moon, the Sea flowing in with a ſtronger Current, and riſing ſome feet higher in the Rivers, ſo far as the tide flows, checks the courſe of the Water in them, and cauſes them to ſwell and overflow the Low Lands above.

"ALONG the Banks of every River lies much Low Land, which is moſtly covered at High-Water ſo far as the Tide flows. As far as the Sea Water flows theſe Banks are covered with an high and ſtrong ſedgy ſort of Graſs, like Wild Oats—and at a greater diſtance from the Sea, where the Waters are always Freſh, ſuch Swampy Grounds abound with Coarſe Graſs, Reeds, and a vaſt variety of other productions, from the lofty Cypreſs to the humbleſt and moſt diminutive Plant. Beſides theſe wet Lands, there are ſeveral Freſh Water Lakes in the interior parts of the Country, and great quantities of low level Ground, which after Heavy Rains, continue long overflowed for want of declivities by which the Waters might run off. When theſe Stagnant Waters are nearly or quite expended, noxious exhalations will abound; for then the Sun's Rays penetrating the Miry Soil, the corrupt, putrid and mephitic Matter which had lien quieſcent is thereby ſet at liberty, and mixes with the Air we breathe. The Soil of this State is very various, being generally light and ſandy within 20 miles of the Sea. This refers only to the more elevated parts, for in many other places the Mould is rich and deep.

" THE quantity of Water which conſtantly Stagnates in various parts, occaſions innumerable multitudes of Reptiles and Inſects that are intollerably troubleſome to the Inhabitants, more eſpecially at night, unleſs they are guarded againſt by Gauze Curtains, or ſome other contrivance.

" EXCEPT in one River, a ſtone larger than a pebble is not to be found any where within 20 miles of the Sea, exclusive of what has been brought in as Ballaſt for Ships.

" WHEN the Engliſh firſt took poſſeſſion of this Country, excepting Savannahs, (which are Plains naturally without Trees) and ſome ſmall openings made by the Savages, the whole was one continued Foreſt; and perhaps one 20th part of it is not yet cleared and cultivated. (Since the above account was publiſhed by Dr. Chalmers, which was about the year 1772, a much greater portion of this State has been cleared, and a conſiderable part of it is now (in 1791) in the higheſt cultivation.)

"From the ſurfaces, therefore, of ſo many large Rivers, and numerous collections of ſtanding Waters, ſuch quantities of ſunk, fenny, and marſhy Lands, and the vaſt Atlantic Ocean that borders on our Coaſt, it may readily be inferred, that exceſſive exhalations muſt be made in this Sultry Climate; to which may be added, the exuberant tranſpiration from the Soil, and of perſpiration from Vegetable productions which every where cover the Ground.

"The extraordinary Moiſture of this Climate is manifeſt from the quantity of Rain which falls at Charleſtown, in the courſe of the year—This, at a medium for ten years, viz. from 1750 to 1760, was 42 inches annually, excluſive of the Moiſture that deſcended in Fogs and Dews.

"Dews that are heavy ſhew an Atmoſphere replete with Moiſture: Theſe are ſo great here in common Seaſons, that thoſe who are abroad at night, are preſently wet and chilled by them—The Fogs are ſometimes ſo great in Winter as to obſcure the Sun for ſeveral days together.

" DURING this damp Weather, Water may be ſeen pouring down Looking-Glaſſes, and whatever is painted: Candles burn dimly, the flames appearing as if ſurrounded with *Halos;* Marſhy Grounds, Ditches, Sinks, and Shallow Standing Waters, emit an offenſive Smell; and all things are rendered ſo Damp within doors where no Fires are kept, that on entering a Houſe a muſty diſagreeable ſmell is perceived, like that of the Chambers of thoſe who are ſweating in Fevers.

" As we have no Hills nor Mountains near us to collect or to conduct the Currents of Air, the Wind ſeldom blows with much force, except in time of a Hurricane, which happens but ſeldom, and at no ſtated periods; nor does ſuch an outrageous Storm ariſe at all, unleſs the Winds have been ſmall and the Weather very Hot and Dry for a conſiderable time before: Hence it ſhould ſeem, that the Air at laſt becomes ſo rarified as to permit the contiguous Denſer Atmoſphere to ruſh towards ours with great velocity as into an exhauſted Receiver, in order to reſtore the Equilibrium.

" On theſe occaſions the Storm always proceeds from the Northeaſt; this being the oppoſite point to that from whence the Wind had blown ſo long before.

" Notwithstanding the damages ſuſtained by Individuals on ſuch occaſions, the want of ſuch tempeſts for many years together is probably a great misfortune to us; becauſe the Air does not receive ſufficient Ventilation to be conducive to Health by any other means in this Climate: But till the Land is more cleared our Atmoſphere cannot

not be wholly renewed even by a Hurricane; becauſe the Wind cannot penetrate ſuch an extent of cloſe Woods, which are even impervious to the Sun's Rays, and where the Air contracts a mephitic quality by cloſe confinement, and the impregnation of the fixed Air, after it has been ſet at liberty by the putrefaction of decaying Vegetables, &c. It is therefore probable that the generality of the Land Winds rather tend to vitiate than to purify the Air with which they come in contact, and that the Winds which come from the Sea are the only ones that purify it at preſent.

" OUR Air is liable to as ſudden and great changes in its temperature as can poſſibly happen in any Country; but fortunately the greateſt variations are from Warm and Moiſt, to Cold and Clear Weather. Theſe extraordinary viciſſitudes are moſt frequent in *Winter* and *Spring*; though in *Autumn* the difference between the Heat of the Day and Night often exceeds 20 Degrees.

"FROM the comparatively greater coolneſs and Moiſture of the Air at Night it probably is, that when the Weather is Calm, during the Autumn, and even later, the whole Country will be covered with a thick Fog. For as the Earth retains the Heat it received from the Sun in the Day longer than the Atmoſphere does, it ſtill emits Vapours, which cannot aſcend to any conſiderable height, becauſe of the Colder Air above; and as the humidity that was before diffuſed aloft, is then made to coaleſce and fall lower, by its gravity being thus augmented, they together form thoſe Denſe Clouds which hang, as it were, balanced between the Cooler Medium above and the Warmer one below. But as the Heat of the Soil abates more the longer the Sun has been abſent, theſe Clouds deſcend ſtill lower, till they cover the face of the Earth in ſuch a manner, that in the Morning the largeſt objects are intercepted from our view ſometimes at the diſtance of 20 yards: But even then, ſhould we look out of a Window up two pair of

Stairs, though the Gound below us can not be ſeen, the Air is perfectly ſerene at that height. The ſurrounding higher proſpects then appear Romantic, and the whole looks like Enchantment. For as only the tops of the Trees and Houſes can be ſeen, they ſeem to grow and ſtand, as it were, in the middle of a Great Ocean, which the Fog reſembles.

" THIS ſcene will continue till the Vapours are exhaled by the Sun, or diſſipated by the Wind, which commonly happens by 10 o'Clock, A. M. or earlier, and the whole will be diſperſed before noon, unleſs the Weather continues quite calm.

" LIGHTNING and Thunder happen at all Seaſons when it Rains immediately after a ſhift of Wind; but from April to September we ſeldom have a Shower without both, though they are generally moſt dreadful in June, July, and Auguſt.

"I CAN not convey a better idea of the Heat we perceive in paſſing along the Streets at Noon in the Summer than by comparing it to that glow which ſtrikes one who looks into a pretty warm oven; for it is ſo increaſed by reflection from the houſes and Sandy Streets as ſometimes to raiſe the Mercury to the 130th degree on Farenheit's Thermometer, when the temperature of the ſhaded Air may not exceed the 94th.

"THE ſudden Death and exceſſive putrefaction of a Dog which was ſhut up in a Sugar Baker's Stove, where the Mercury roſe to the 146th Degree, led Dr. Boerhaave into ſome miſtakes with reſpect to the effects of Heat on living Animals, which almoſt every year are contradicted by experience in this Climate. The Creature which was the ſubject of this experiment, did not die of Heat alone, but rather of the rarity of the Air, and the mephitical qualities it contracted in the Stove for want of the admiſſion of freſh Air.

For we are aſſured, that on ſeveral occaſions a ſtill greater degree of heat is ſuſtained by Mankind, and for a longer time together * without any immediate danger to life.

Few

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* Dr. Zimmerman in his Geographical Hiſtory of Man, informs us, that "Man, and Man alone, is formed to reſiſt the two extremes of Heat and Cold, and that he lives and continues healthy under all the variations of temperature, from the 232 of natural Cold, to the 130th Degree of natural Heat."

See alſo the account of Dr. George Fordyce's Experiments in Duncan's Commentaries; and the account of the Climate of Ruſſia by Dr. Guthrie, in the Royal Tranſactions of Edinburgh, Vol. 2d.

"In Siberia, A. D. 1772, the Cold was ſo extreme on the 7th of December, that the Mercury ſunk to 80° below 0, and ſome days afterwards it froze in the Ball, which according to the beſt experiments requires 370° below 0, to be completely congealed."

On Churchill's River, in Hudſon's-Bay, Brandy could not be preſerved from freezing in the cloſeſt rooms. In Senegal, which is ſituated in 17 Degrees N. L. the Mercury roſe to 108$\frac{1}{3}$° in the Shade, and near the Coaſt, to 117$\frac{1}{3}$°. The Negroes often ſuſtain a Heat of 120°.

Dr. Blagden reſiſted the Heat when raiſed to 48° above that of Boiling Water for the ſpace of 8 minutes.

Duhamel and Tillet give an account of ſome French Girls who ſupported a Heat of 175° in an Oven without any injurious effects for more than ten minutes.

" Few days paſs throughout the year in which we do not ſee the Sun, and the Weather for the moſt part is ſo moderate in the Winter Seaſon, that Candles burn ſteadily in the open Balconies on nights of public rejoicing.

" It ſeldom freezes more than four or five times in the above Seaſon; but then a thaw ſo ſoon ſucceeds, that in the ſpace of Ten Years the ice may not be ſtrong enough to bear a Man's weight. It is unuſual to ſee the Ground covered with Snow; and when this does happen, it ſeldom lies more than 24 hours.

" Hoar Froſts are, however, frequent in Winter, and Hail with the Summer Showers, as *Halos* are at all ſeaſons.

" The loweſt ſtation of the Thermometer for the laſt 10 years has been 18, and the higheſt 101.

“The difference in the range of the Barometer, for the ſpace of 15 years, was not more than 1.22 Inches. Very warm Air, or the flame of a Candle held near the tube, will cauſe the Mercury to riſe in the Barometer, and Eaſt or Northerly Winds do the ſame, but it ſubſides with a South or Weſt Wind.—“ This Inſtrument ſeems rather to indicate the denſity or elaſticity of the Atmoſphere than the weight thereof. Of this, many proofs might be given, but they do not belong to this place.”

CHARLESTOWN.

THE Metropolis of South Carolina ſtands in the Latitude of 32° 45, and about 4° Weſt of Philadelphia, and 79 from London, on a W. S. W. Courſe. This Town is built on a narrow Peninſula, which is formed by the conflux of Aſhley and Cooper Rivers, which are broad and deep, and diſcharge their Waters into the Ocean about ſix Miles below the Town.

In theſe Rivers is a rapid Flood and Ebb, and the Tide in common riſes and falls about five feet, but at New and Full Moon ſeven Feet. As the Gulph of Florida runs with a ſwift Current towards the Northeaſt, at the diſtance of about 15 or 20 Leagues from this Coaſt, it will be readily underſtood why a ſtrong N. E. Wind ſhould always make a High Tide in thoſe Rivers, as by directly oppoſing that Stream, it is made to recoil on the Coaſt of Carolina, and thus cauſes the Rivers to Swell.

Three ſides of this Town are waſhed by the above Rivers; the Ground between them being ſo Low and Level, that it is not ſeven feet, nor is the Country for 20 Miles in circumference 10 feet higher at a Medium, than the ſurface of full Sea is at Spring-Tides.

THIS is both a healthy and an agreeable ſituation in ſuch a Climate, for it ſtands, as it were, in a large Plain, having a Sea open to it in front, and waſhed by the waters of two ſpacious Rivers on either ſide. Some of the Streets are conveniently wide, but moſt of them are much too narrow.* Beſides their being a Nurſery for various Diſorders from their confined ſituation, they have been found extremely inconvenient in caſes of Fires, the deſtructive effects of which have been frequently felt in this City. The Streets, however, from Eaſt to Weſt, extend from River to River, and running in a ſtraight line, not only open beautiful proſpects each way, but afford excellent opportunities by means of ſubterranean Drains for removing all nuiſances, and keeping the City clean.

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* "NARROW Lanes and Alleys ſhould be prohibited by the Police in every City, for thoſe confined ſituations are the common ſources in which the moſt infectious and malignant diſtempers are engendered."

WHEN the South Wind blows, it is always Warm and Moiſt, becauſe it comes from the Warmer Latitudes, and ſweeps over a great extent of Sea; that which comes from the Southweſt and Weſt is Sultry and Moiſt in Summer, becauſe it paſſes over large ſpaces of heated, marſhy, overflowed, or Wood Lands, and in Winter it brings Damps or Rain, being fraught with the exhalations that are made from the above Soils, as well as by thoſe Vapours that are collected and condenſed by the high bleak Mountains that lie behind. On the contrary, the Northweſt and North Winds are Cool and refreſhing in the Summer, but Chilling in Winter; and at all Seaſons they diſpel Clouds and Fogs by their pure elaſtic preſſure.

IN the Summer Months, a *Southeaſt* Wind commonly ſprings up about 10 o'Clock A. M. which is called the *Sea Breeze;* this begins very gently, but gradually increaſes in ſtrength, and fans briſkly till 6 or 7 in the evening, when it gradually abates, and ceaſes before night. About 8 o'Clock at night a ſmall Weſterly Wind ariſes and continues till the ſame hour next Morning, and then ceaſes likewiſe—After a pauſe of about two hours, the Sea Breeze ſets in again as before, &c.

OF THE WATER.

THE Water in common uſe for Drinking and Cooking at Charleſtown is always Brackiſh. Fifty-five cubical Inches of this Water was found to weigh Six Grains more than an equal Bulk of Rain Water; and when the ſame weight of Sea Salt was added to the Rain Water, it precipitated a Solution of Silver when mixed with Spirits of Nitre, became of a Milky colour with Oil of Tartar per deliquium, and taſted like the Well-Water.

THE manner of living in Charleſtown is much after the Engliſh faſhion; but either weak and acid Punch, or Rum and Water, is uſed by many for conſtant Drink, and People in eaſy circumſtances make too liberal uſe of Wine, particularly at and after Dinner, to the great injury of their Conſtitutions.

TEA and Coffee are alſo ſo cheap, that one or other is uſed twice a-day by people of all deſcriptions; for want of Markets in the Country, more Salted and Smoaked Meats are conſumed by the People there than in the Town; they, however, abound with Poultry, Milk, wholeſome bread, made of Maize or Rice, and the moſt delicious Fruits.

"CHARLESTOWN, increaſes faſt in buildings and People;* but at preſent there are not quite 1200 dwelling houſes, with nearly as many kitchens that are built ſeparate, beſides a great number of Warehouſes.

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* Dr. CHALMERS account of Charleſtown was publiſhed in 1772: Since that time it has increaſed rapidly; for by Morſe's Geography, it appears that there were in 1786, 1600 Houſes

“ The White Inhabitants of this Town may be about 5500; but the mortality amnog them cannot be exactly determined at preſent, no Regiſter thereof having been kept for ſeveral years: Formerly when Bills of Mortality were annually printed, the Inhabitants then being not quite 4000, it appeared that one in 37 died annually, or about one in each family in the ſpace of 7 years and an half.

“ It muſt be acknowledged that we are more healthy than formerly, ſince the Hurricanes of 1752. Children in particular have eſcaped better ſince; for before that time, almoſt half the deaths happened amongſt

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Houſes in the City, with 9600 White Inhabitants, and 5400 Negroes, and that upwards of 200 of the White Inhabitants were above 60 years of age.

mongſt thoſe who were under five years of age.

"BIRTHS cannot be aſcertained from the Chriſtenings; for Children are not always Baptized the ſame year in which they are born; but it is certain, they far exceed the deaths of the ſettled Inhabitants.

"THE natives, for the moſt part, riſe above the middling ſtature, and they attain their full height ſooner than people uſually do in Colder Climates. In general they are of a ſlender make, have pale complexions, thin lank hair, which ſeldom curls: Few live 60 years, and the bald, or hoary, and wrinkled appearances of old age, often ſhew themſelves at the age of 30 years, or even earlier, more eſpecially on thoſe who dwell in the Country."

Dr. CHALMERS Account of the ſtate of the Thermometer in the Shaded Air, at Charleſtown, in the year 1752.*

THERMOMETER.

	Higheſt.	Loweſt.
January	56	18
February	79	32
March	81	41
April	87	49
May	93	60
June	92	67
July	101	74
Auguſt	96	68
September	84	64
October	83	55
November	81	45
December	74	32

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* FROM Dr. John Lining's Letter to Dr. Robert Whytt, it appears, that in the beginning of Auguſt, of the year 1748, the weather was warmer at Charleſtown than he had ever known it in that month: The Mercury for ſome days at 2 o'Clock

State of the Thermometer in the Shaded Air at Charleſtown in the year 1759.

THERMOMETER.

	Higheſt.	Loweſt.
January	68	27
February	73	31
March	74	40
April	79	55
May	85	51
June	92	63
July	93	65
Auguſt	90	61
September	85	59
October	81	45
November	74	31
December	71	28

2 o'Clock, roſe, in the Shaded Air, to the 96th Degree, at which time ſeveral died of Apoplexies.

THE latter part of Auguſt, and the firſt week in September, were much more temperate; the weather being then much as uſual at that ſeaſon of the year.

" THE foregoing tables ſhew a conſiderable difference in the temperature of our Air, and this may in part account for the changes that are brought about in our Conſtitutions. If the Thermometer, expoſed to the Sun during our hotteſt weather, was compared with the greateſt Winter's Cold, the difference might be 100 degrees.

WHY the method of keeping a Regiſter with two Glaſſes, the one expoſed to the Sunſhine and the other kept in the ſhade, is not attended to I know not; for the mediums of both, taken together, would, in my opinion,

THE ſecond week in September was Cold, the Wind being conſtantly Eaſterly, and the weather cloudy.

IN the latter part of September, and from the 1ſt to the 18th of October, the greateſt heat at 2 P. M. was 79°, and the loweſt Degree of heat, during that time at the ſame hour, was 52°; the greateſt nocturnal heat was 71°, the leaſt 42°.

THE greateſt increaſe of heat in 24 hours, was 17°, the greateſt decreaſe of the ſame was 22°.

IN all the month of September, and in the greateſt part of October, the Wind was Eaſterly.

nion, come nearer the truth in eſtimating the effects of the weather on the human body; for it ſeems clear to me that by keeping a Thermometer in the ſhade only, we diſcover no more than the greateſt Coolneſs in the Air; but it in no wiſe points out that degree of heat which thoſe ſuſtain who are obliged to be much abroad in the day, as is the lot of the greateſt part of the people of this State, (particularly of the Slaves.)

THOUGH much moiſture is always preſent in the Air in this Climate, yet it increaſes with heat; for it Rains as much (as appears by Regiſters which I have kept of the weather for 10 years) in Summer as in the Winter and Spring taken together, and ſtill more Rain falls in the Autumn.*

THE

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*FROM a compariſon of the Tables of Meteorological obſervations made at Charleſtown with thoſe made at Jamaica, which is ſituated between 3 and 4 degrees within the Tropic of Cancer, the Climate of the latter appears much more ſalutary

as

" The ordinary diſtribution of the months into ſeaſons does not appear ſuitable for this Climate. For certain it is, that taking the

3 A whole

as well as more agreeable than the former.——— " In the Weſt-Indies, during the ſix months of the year, when the Sun has paſſed the Equinoctial line on his annual return to either Tropic, that Seaſon is called the Summer; ſo from the 20th of March, when the Sun paſſes the Equator into the Northern Hemiſphere to viſit the tropic of Cancer, until the 21ſt of September, when he repaſſes it into the Southern Hemiſphere to re-viſit the tropic of Capricorn, it is conſidered the Summer Seaſon in the Weſt-Indies, and the remainder of the year is called Winter. Within the tropics the heat is nearly uniform, ſeldom varying on any given ſpot, either by Day or Night 16 degrees: At a medium, on the Coaſt, and on Plains not much elevated above the level of the Sea, the Heat is about 80 of Farenheit's, or 21 of Reaumer's Thermometer; and the difference between the Heat of January, the coldeſt month, and of Auguſt the hotteſt month of the year, is ſeldom above 6 degrees; but between the Heat of the Morning and Noon, the difference is 16°. The Rains begin in April or May, and continue 6 or 8 weeks—and again in September, when they are violent and heavy; but when the Sun arrives at the tropic of Capricorn, its greateſt Southern diſtance on the 21ſt of December, the ſeaſon becomes dry and pleaſant, accompanied with Night Winds from the Land." (*Moſely, on Tropical Diſeaſes.*

whole of the month of March together with reſpect to the temperature and qualities of the Air, it does not differ much from ſome of thoſe that are called Winter Months; it is, however, retained here in compliance with eſtabliſhed cuſtom as belonging to the Spring, though the medium of the Thermometer be 10 degrees leſs than it is in April.*

THOUGH we might expect the Spring ſhould be the moſt wholeſome ſeaſon of the four in this Climate, becauſe the Air is then impregnated with exhilirating and refreſhing exhalations iſſuing from a boundleſs variety of Vegetables juſt emerging into life; yet we find it is leſs ſo than Winter "with his Ruffian Blaſts," owing to the ſudden and extreme Viciſſitudes of the weather, eſpecially in the early part of that gay ſeaſon.

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* IN Muſchenbrocks Element's of Natural Philoſophy, it is ſaid that in all the countries within the tropics, the greateſt degree of heat riſes only to 88 or 90, and the loweſt falls to 72 or 70.

It is, however, much more wholeſome than the latter part of Summer and Autumn, when the weather becomes not only more variable than it was before, but the Atmoſphere alſo becomes loaded with exhalations from deciduous and putrifying Vegetables, as well as from the innumerable bodies of Inſects, and other Animals, which having anſwered the ends of their generation, are now dying in all corners, and which as well as the Miaſmata exhaled from Marſhes and Lakes, unleſs diſſipated with High Winds, contribute to poiſon the principle of life.

An Account of the Weather and Diſeaſes which occur in Charleſtown at the different Seaſons of the Year.

The DISEASES of MARCH and APRIL.

" ALTHOUGH the weather be much Warmer in March than it is in the preceding Month it is ſtill changeable, as being intermixed with Cold, Windy, and Warm days, in which the Mercury ſometimes riſes nearly to the 80th degree, and falls in a few days to the 40th; the contrary alſo often happens in a ſhort ſpace of time.

Pleurisies, Peripneumonies, Quinſies, and Catarrhous Fevers are often epidemic this month, and often continue throughout the month of April, but with a leſs degree of inflammation.

When one perſon in a family ſickens, and the Diſeaſe cannot be removed in a few days, nothing is more common than for ſome of the attendants to be ſeized in the ſame way. This gives an alarm to their neighbours, who conclude the Diſeaſe to be infectious, than which there is nothing more foreign, for it is owing to the ſimilarity of Conſtitutions which now prevails, and to greater expoſure than common to the remote cauſes. For thoſe who depart from their cuſtomary manner of living are moſt in danger of Diſeaſes at all times. This is particularly the caſe of Nurſes, who are obliged to go often out of a warm room into the cold Air at all hours, and are often deprived of their reſt, &c.

When the Patient had a Cough and Spitting before he was ſeized with a Peripneumony at this time, the expectoration will generally be pretty free on the 2d or 3d day of the Diſeaſe, provided care has been taken; and it alſo will be more plentiful than it was in the like diſorder during the three preceding months—The blood too being of a laxer conſiſtence than is commonly obſerved when drawn in the month of February, ſhews ſigns of leſs inflammation; for though a pellicle of Coagulable lymph may ſtill appear, yet this will be thinner and not ſo tough as in the preceding month.

Youth are obſerved to be more liable to

inflammatory complaints in March and April than at any other time of the year; and though the Fevers which occur at this time are moſtly attended, and perhaps depend upon catarrhal affections at firſt, they generally remit, and frequently become Quotidian Intermittents in a few days if properly managed; elſe they may continue till the 7th, or longer, and a delirium, bleeding from the noſe, or both, may be frequent in them. During theſe two months the two laſt mentied ſymptoms are not uncommon in Pneumonic affections.

When the weather is warmer at this time, Women, and weakly Men have Fevers, with ſome degree of Cough and Pain in the ſide or breaſt; but they remit from the beginning, and in a few days end in Quotidians, in which much Bile is ſometimes diſcharged upwards at the beginning of the Paroxiſms.

The Gout and Rheumatiſm, Serous, or

inflammatory Quinſies, and the Eriſipelas alſo appear at this time; the latter in particular oftener than at any other time of the year. The Eſſera likewiſe is not unfrequent, but it happens moſtly in the firſt attacks of Intermittents—It alſo ſometimes happens without any Fever, and is very troubleſome.

*FORMERLY the Scarlet Fever uſed to appear amongſt our vernal Diſeaſes, but whether generated, here or brought to us from other parts, I cannot ſay: But as it has not occurred in the courſe of my practice for 18 years

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*(ACCORDING to the account of Tournfourt, the Cynanche Maligna, which he calls the Child's Plague, was firſt imported into Europe from the Levant 60 years before the period of his obſervations, which were publiſhed 30 or 40 years ago.) But whether the Scarlatina be the ſame Diſeaſe only rendered different by the circumſtance of climate, ſituation, modes of living, and conſtitutions, I have not yet been able to aſcertain; nor do I know whether the ſame perſon is liable to either of them more than once.)

(THE Scarlatina is not entirely confined to Children; for in Auguſt, of the year 1791, I attended a Patient of the name of Miller, who had it in a very violent manner in the 36th year of his age.)

years paſt till lately, I believe it is not a Diſeaſe of this Climate.

A COMPLICATED and very acute complaint appeared here in the month of October, 1770, which was ſaid to have paſſed hither from Georgia, where many people died of it; beſides the common ſymptoms which appear at the commencement of the generality of Fevers, a Quinſy generally appeared at the beginning, with great inflammation of the Velum, Uvula, and Tonſils; and quickly ſpreading to the Euſtachian tube—and in thoſe who recovered (as moſt of them did) the inflammation extended to the throat, from the throat to the Alæ Naſi, which ſoon became ulcerated, and a vaſt diſcharge iſſued from the Noſtrils, at which time the voice was hoarſe, indiſtinct, and ſnuffling.

THE tongue in many was greatly ſwelled, and extended inſomuch as to hang out of the mouth. After the inflammation had continued a few days, the fauces and Uvula became ulcerated, and appeared of a bright pearl, or duſky brown colour.

The Gargariſms I uſed in ſuch caſes were decoctions of Peruvian and Oak Bark, with a ſmall proportion of Serpentaria, to which Red Wine, Tincture of Myrrh, or Brandy, were added; and they were likewiſe acidulated with Spirits of Vitriol or Alum, always in a greater or leſs proportion as the condition of the Ulcers appeared to require. Half a ſpoonful of the ſame compoſition was alſo directed to be often ſwallowed both to cleanſe the throat, and give tone to the ſyſtem.

At the beginning of this complaint, Bliſtering acroſs the throat, and the back part of the neck, and receiving the ſteams of hot water and Vinegar into the throat, was of ſenſible ſervice. As ſoon as the activity of the Pulſe began to abate, the Bark, in Powder, was exhibited liberally, mixed with the above decoction, &c.

When the Inflammatory Symptoms appeared conſiderable, the Lancet was always employed, and apparently with real benefit.

Very few who were affected with this ſpecies of Quinſy eſcaped without having both Scarlet and Miliary eruptions, which generally appeared on the 2d or 3d day of the Fever. And it is remarkable, that they who had the two latter complaints in a copious manner, for the moſt part, ſuffered leſs from the Angina. In thoſe who had frequent Vomitings, and large Watery ſtools, the danger was very great.—Theſe were therefore endeavoured to be reſtrained by Opiates, Warm Spirituous fomentations, and hot applications to the Body and Limbs."

Our Conſtitutions become ſo changed towards the end of April, provided the Seaſon be but regularly Warm, that Fevers prove either Quotidians, or Tertians at once; and are often times attended with Bilious diſcharges both ways.

The long continuance of hot weather never fails to relax and debilitate the Solids in the ſame manner as if they had been over diſtended.

Those who have ſwelled Spleens, or the Jaundice; pale Girls and Women who have defective Menſes, are liable to hemorrhages from the noſe or lungs, more eſpecially during Fevers.

Diseases of May and June.

It may be obſerved that thoſe complaints which depend upon a *Weakened tone* of the *Solids*, and a *loſs* of *Harmony* between the Nervous and Sanguiferous Syſtems (which is preſumed to be the caſe in Intermittent, and

Remittent Fevers, Choleras, Dyſenteries, &c.) begin to make their appearance here early in the Summer, when the preceding months have been warm and moiſt, a ſtate of the Atmoſphere which never fails to induce that ſtate of the Syſtem favourable to the operation of their remote cauſes.

* DISEASES of JULY, AUGUST and SEPTEMBER.†

FEVERS with great Languor, profuſe Sweats, and other profuſe diſcharges, particularly with diarrhœas appear in each of theſe months.

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* D. LIND, who had the beſt opportunities of informing himſelf, ſays, in his Eſſay on preſerving the health of Seamen, 2d Edition, page 49.

"A Malignant Fever of the Remitting or Intermitting kind, moſt frequently a double tertian is the genuine produce of heat and moiſture, is the Autumnal Fever of all hot countries; and is the Epedemic Diſeaſe between the tropics.

† THE exceſſive heat of the weather in Carolina, during the growth of the Rice, in the months of July and Auguſt, has ſometimes produced a Remitting Fever with malignant Symptoms, ſimilar to that which in the Weſt-Indies goes by the name of the Yellow Fever."

months. But as in the two latter months, the winds often ſhift to the N. or N. E. with an increaſed coldneſs in the Air, after a Thunder Shower, the paleneſs and ſhrinking of the ſkin, and chilly ſenſations that always precede an Intermitting Fever, will then be more ſenſibly diſtinguiſhed, but is ſeldom ſo perceptible in the complaints of July.

DISEASES of OCTOBER and NOVEMBER.

DISEASES of a mixed kind, or between the Inflammatory (or rather mild Inflammatory Diſeaſes which appear in theſe months ſoon terminate in Remittents or Intermittents) and Intermitting are ſeen in October and November, and alſo (as ſhould have been obſerved before) in March and April; at which time our Conſtitutions are as it were in a middling ſtate with regard to tenſity and laxity.

IN Winter again, when the weather is

clear and cold, the Solids being then ſpringy and tenſe, and the conſtituent particles of the blood more intimately united, Intermitting Fevers are ſeldom ſeen, having given place to other Diſeaſes of an oppoſite nature; unleſs the weather be unſeaſonably warm.

HENCE it appears, that the ſtrength or weakneſs of our bodies keeps pace with the weather; and that they do not paſs to either extreme all at once, but rather by degrees, or according as the Air changes in its temperature at different ſeaſons of the year; ſo that theſe do not ſucceed each other ſuddenly, but with a gradual progreſs, our Conſtitutions conforming thereto, whether the tranſition be from cold to hot, or the contrary. The truth of this reaſoning, every obſervant perſon may perceive, by an increaſe or abatement of his own ſtrength, and the difference that of courſe happens in the Diſeaſes of the ſeveral ſeaſons.

" THOUGH one day of bad weather may

produce various complaints, yet before any (Epidemic, or) popular diſeaſe can take place, (ſetting aſide thoſe that are contagious or infectious, that is, thoſe whoſe remote cauſe is a ſpecific poiſon received into the body by the Lungs or Abſorbent Veſſels over the ſurface of the body) the air for a conſiderable continuance of time muſt have been of ſome certain temperature and quality, or nearly ſo, and then a ſudden change muſt take place in that temperature before it can produce a morbid change in the functions of the body. And as theſe effects are brought about ſooner or later, according as other cauſes have concurred in rendering one conſtitution more infirm or ſuſceptible of impreſſion, or they be more or leſs expoſed to the weather ſo changed, they may ſicken in great numbers nearly at the ſame time, or in a more ſcattered manner one after another, though then a ſtrong ſimilarity may, in many reſpects, be obſerved in moſt caſes.

WHEN the ſeaſon is very inconſtant, a

variety of complaints and confuſion in their ſymptoms generally enſue, according to the ſtate the body happens to be in when acted upon by ſuch a ſhifting mixture of different impreſſions; and then the obſervation of Hippocrates is likely to be verified, "That all diſeaſes happen at all ſeaſons."

I have remarked that the returns * of periodical diſorders, and the ſymptoms of thoſe that are of the more continued ſort, conform in a good meaſure in their acceſſion or times of attacking, with ſuch parts of the 24 hours, as come neareſt to the temperature of thoſe ſeaſons to which theſe ſeveral complaints ſeem, as it were, properly to belong. Thus, if the morning be ſuppoſed the Spring, noon the Summer, evening the Autumn, and night the Winter of the day, as the parallel will run very

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* This correſponds with what Dr. Cullen has obſerved with reſpect to the times of acceſſion of the different varieties of Intermittents. Vol. I. p. 59.

"Quotidians come on in the morning, Tertians at noon, and Quartans in the afternoon."

very nearly when the weather is ſettled; vernal diſorders ought to commence or be increaſed in the forenoon, and abate towards the evening, or in the forepart of the night; thoſe of the Summer ſhould invade towards noon and decline in the evening; but at whatever time they return, their ſymptoms will certainly be heightened in the middle of the day. On the other hand, Autumnal diſorders ſhould attack or be aggravated about 4 or 5 o'clock, P. M. And ſuch diſorders as are common to the Winter, either come on or are much increaſed in violence at the beginning of the night, and remit or go off towards morning, continuing more moderate till the next evening, unleſs the weather be very cold.

THE diſorders of the firſt period, are not ſo certain in their onſets and exacerbations; but for the moſt part a ſtriking agreement will often be perceived in them.

EXCEPTING the Plica and a few ſuch oddities, the people of South-Carolina are liable to all the diſorders that are to be found elſewhere, or which can ariſe in conſtitutions, that are differently modified in the various ſeaſons of the year. The endemic diſeaſes of this place are common to other warm climates.

THE Tetanus appears here at all ſeaſons, more eſpecially from wounds or ulcers of the tendinous parts, and to this diſeaſe new-born infants are very liable; nor have I known more than one out of many hundreds of them recovered from it.

EXCEPT during the winter, varieties of the Intermitting Fever are common at all times; and periodical pains in different parts, particularly in the head; many perſons being daily more or leſs affected with it, owing to an Atony and want of a perfect balance between the heart and extreme veſſels, the latter appearing from the paleneſs and coldneſs of the ſkin to be ſpaſmodically conſtricted: ſuch people have ſeldom a natural warmth in their hands, much leſs in their legs and feet: Menorrhagiæ, Abortion, and Prolapſus Uteri, and other ſexual diſeaſes are very common and generally alarming.

FROM a want of excitement in the nervous ſyſtem, or from an Atonia of the ſanguiferous veſſels, and a diminiſhed momentum of the blood, congeſtions of the fluids, or obſtructions of the Viſcera, eſpecially of the Spleen, are frequent in the Autumn, as are local and general Dropſies and Hernias, and few adults have eſcaped the Piles, ſome people being daily more or leſs troubled with them: The Scurvy in a mild degree is alſo very common here; the gums firſt become ſpungy, and are ſoon deſtroyed, ſo that the ſockets of the teeth being thereby expoſed to the air, they become carious, and not only uſeleſs but painful. The Rheumatiſm may be deemed one of our periodical diſeaſes; the Gout too is a frequent and unwelcome gueſt with the opulent and luxurious.

WHATEVER be the nature of that humour or matter which communicates the Lues Venerea, the Yaws and the Lame Diſtemper, or Joint Evil, called in the Weſt-Indies the Cacobia, whoſe direful effect are to deſtroy the ſmaller joints firſt, and afterwards the larger ones, all ſeem owing to ſomewhat, not very diſſimilar; for they all three terminate nearly in the ſame manner when not properly managed or when left to take their own courſe, and appear to be curable almoſt in the ſame manner.

THE Triſmus, or Jaw-Lock, is very common among negro infants ſoon after birth, and is ſuppoſed to be occaſioned by the heat and ſmoke of the cabins in which they are born, and ſubſequent expoſure to cold and damp air. Children are very much infeſted with worms in Charleſtown.

BUT as the remedies generally employed are in no reſpect different from thoſe employed ed in other countries, I ſhall not tranſcribe them here.

Dr. Lining ſays, "The Yellow Fever has been four times epidemical in Charles-town, viz. in the Autumn of 1732,—39,—45,—48; and as none of thoſe were remarkable for extraordinary heat or rainy weather, he concludes that it did not take its origin from any peculiarity of the climate or ſoil, but that it was imported from the Weſt-Indies; and even aſſerts that whenever the diſeaſe appeared, it was eaſily traced to ſome perſon who had lately arrived from the Weſt-India iſlands, where it was epidemical."

But from a compariſon of the deſcription which he gives of the ſymptoms of this fever, with that given by Dr. Chalmers, and particularly from the more recent obſervations of Dr. Hunter in the Weſt-Indies, I am inclined to think Dr. Lining has fallen into a very great error reſpecting the nature and cauſe of this diſeaſe.

For the greater yellowneſs of the ſkin appears to be the only circumſtance in which it differs from the bilious Remittents of hot climates, or very hot ſeaſons of any climate. Dr. Lining himſelf, though he conſiders it as a ſpecies of peſtilence, ſays, the negroes were exempt from it, though expoſed as much as the whites, and that thoſe who were conveyed to the country with it never communicated it to thoſe with whom they had communication.

The celebrated Dr. Lind of Haſlar Hoſpital, appears to have fallen into a ſimilar error, owing to the miſrepreſentation of facts by Dr. Warren and others.

He has alſo recorded an account of the Yellow Fever becoming epidemic in Philadelphia, in the year 1740, owing to ſome infected apparel of a gentleman who had died of it in Barbadoes. Theſe cloaths, ſays he, being unluckily hung abroad to be aired, preſently diffuſed the contagion of the ſame fever over that part of the town, and deſtroyed 200 perſons.

It is however at preſent generally known (for it has been proved by the moſt accurate and unexceptionable obſervations *) that no infectious diſeaſe can be communicated without contact, or the near approach to the body of an infected perſon, or to fomites or ſubſtances imbued with infectious matter or morbific Miaſmata.

Even the Peſtilence, the moſt contagious of all diſeaſes, is not communicable by the air, without contact, or the near approach to an infected perſon, or to ſome ſubſtance which has imbibed the infectious matter: And it is more

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* See the papers of the benevolent Mr. Howard on Lazarettos, p. 36. Mertin's hiſtory of the Plague at Moſcow, in 1771. See alſo the travels of Mr. Bruce, 3d vol. quarto, p. 717 and 18.

more than probable that the Peſtilence is only a more violent degree of the Typhus or Putrid Fever, modified and rendered more violent by climate, ſituation, manner of living, and conſtitution.

Of

Of the SITUATION, CLIMATE, *and* DISEASES *of* GEORGIA.

THE following is the ſubſtance of accounts received from different correſpondents reſpecting the Situation, Climate, and Diſeaſes of Georgia.

THE ſtate of Georgia lies between the 31ſt and 35th degree of north latitude; computed to be about 600 miles in length, and 250 in breadth. Bounded eaſt by the Atlantic, weſt by the Miſſiſippi, north by South-Carolina, and ſouth by Florida.

IT is ſeparated from South-Carolina by the river Savannah, and from Florida by the river St. Mary.

AUGUSTA, the preſent ſeat of government, is ſituated on the Savannah river, about 135 miles from its entrance into the ocean. The town of Savannah, on the ſame river, which is only 17 miles from its mouth, ſtands upon an elevated ſteep bank, and back of it lies an extenſive gravelly plain.

THE north ſide of the river on the Carolina ſhore is a mere bog, from whence numerous exhalations conſtantly riſe in warm weather, and by which the inhabitants of the town often ſuffer when the wind is north or north-eaſt.

THE town laſt mentioned contains about 250 families. The number of inhabitants in the whole ſtate, according to the return preſented to Congreſs, October 28th, 1791, amounted to 82548.

AUGUSTA at preſent is a very inconſiderable village; but from its favourable ſituation at the head of navigation, and the productive quality of the ſoil of the adjacent country, it cannot fail of riſing into conſequence in the courſe of a few years.

The Savannah is fanned every day in Summer by refreſhing breezes from the ſea; Auguſta is deprived of this advantage by its inland ſituation.

From June to September the mercury commonly fluctuates between 76° and 85° in the ſhaded air, but is often as high as 90, and ſometimes 100, eſpecially forty or fifty miles from the ſea.

In winter it ſometimes deſcends below 17°, but is very ſeldom below 32°. It commonly ranges at this ſeaſon from 40 to 60°.

The moſt prevailing winds here in Summer are ſouth-weſt or eaſt, and in Winter the north-weſt.

The eaſt wind is the warmeſt in Winter, and the cooleſt in Summer.

The ſouth, which prevails too frequently for the health of the inhabitants, is damp, ſultry, inelaſtic and oppreſſive, at all ſeaſons, but amazingly ſo in the Summer and Autumn.

About a fifth part of this ſtate is as level as a floor, particularly all that tract which lies between the rivers Savannah and St. Mary, extending 40 miles weſt. This tract being interſected with numerous rivers, along the banks of which is one continued marſh, the cleared ground is converted into Rice and Indigo plantations. In other reſpects the country exhibits preciſely the ſame appearance as South-Carolina.

About 70 or 80 miles to the weſtward, the land begins to be more or leſs uneven, riſing from ſmall ridges into hills, and the hills ſucceſſively increaſing in height till they finally terminate in lofty mountains.

That vaſt chain of mountains which commences with Kattſkill, near Hudſon's river in New-York, known by the name of the

Alleghany and Apalachian mountains, emphatically ſtiled the Spine of North-America, terminates in this ſtate about 60 miles from its ſouthern boundary.

As this ſtate ſo nearly reſembles South-Carolina in ſituation, ſoil, temperature of climate, and almoſt every other circumſtance, I ſhall not trouble the reader with particulars.

Dr. Ramſay adviſes ſtrangers who propoſe to ſettle in the ſouthern ſtates, to manage ſo as to arrive there about the beginning of November, that their conſtitutions may have time to become accommodated to the climate before the commencement of the ſickly ſeaſon. The ſame learned and judicious writer remarks, that the ſudden deaths of perſons unaccuſtomed to the climate of South-Carolina, are to be referred to an injudicious choice of time in coming to it, and ſtill more to their own imprudence and irregularities, in conjunction with the hoſpitality of the inhabitants.

CONCLUSION.

BY comparing the preceding account of the ſeveral climates of the United States with thoſe of the countries in Europe in the ſame parallels of latitude, we learn that there is a very material difference between them.

THIS circumſtance is preſumed to be owing to the following cauſes.

1ſt. To the height of the lands in North-America, which are ſituated between the 40th and 50th degrees of latitude, and extend between ſix and ſeven hundred miles from north to ſouth. From theſe the greateſt rivers have their ſource. To the eaſt of them lie the lakes Superior, Michegan, Huron, Otſwego, Erie, &c. and the intermediate country is covered with impenetrable foreſts, interſperſed with ſwamps and moraſſes; * hence

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* To M. de Mairan we owe the diſcovery that the rigour of

hence this vaſt ſpace is incapable of receiving or retaining much heat in Summer, and conſequently one great ſource of that warmth by which the Winters in the old continent are moderated, is here conſiderably diminiſhed.

HENCE alſo the weſterly winds, at leaſt ſuch of them as originate behind theſe high lands, depoſite their vapours in paſſing over them, and re-abſorb freſh ones from theſe numerous lakes and immenſe foreſts over which they paſs, and are thereby ſtill more cooled; for air always participates of the temperature of the ſubſtance with which it comes in contact.

FARTHER north, viz. between latitude 52 and 63, lie Hudſon's Bay and Straits; about

of the Winter's cold is tempered by the heat imparted to the atmoſphere by the earth, and that this heat is always proportioned to the heat abſorbed by the earth in the abſence of froſt, and that the Winter is more or leſs ſevere according as the heat and dryneſs of the atmoſphere has been more or leſs intenſe during the preceding Summer.

Kirwan's Eſtimate of Climates.

50 miles on the ſouth of this bay, from lat. 50° to 58°, there runs a ridge of mountains, which prevents its receiving any heat from that quarter ; and hence the intermediate country is ſo cold that ſcarce any animal can live in it.

To the eaſt, this bay is bounded by the barren, mountainous country of Labrador, and a number of iſlands that lie at its entrance. The portion of the Atlantic oppoſite to the entrance of theſe ſtreights is ſurrounded partly by the continent of America, and partly by Greenland as far down as lat. 59. Both are monntainous and interſected by a multitude of creeks and inlets, which are frozen over in Winter, and the enſuing Summer the floating ice is protected by numerous high iſlands, and partly carried down the eaſtern coaſt as far as lat. 42, whereby the coolneſs of the atmoſphere is encreaſed. Hence the N. W. winds are the coldeſt in all theſe parts of America during the Winter ſeaſon, and for reaſons which have been explained from page 80 to 96 the north-eaſt as the coldeſt in Summer.

The greateſt part of the heat of the atmoſphere is certainly derived from its communication with the land or water over which it paſſes, and in this way it receives either heat or cold more readily than any other body of equal bulk, eſpecially when confined, as in vallies.

Air incumbent on ſeas or on large tracts of water, is generally many degrees warmer in Winter, and cooler in Summer, than air incumbent on land; becauſe land is more ſuſceptible both of heat and cold than water.

Experiments made by Mr. Hales in 1724, prove that the ſurface of the earth is much heated during the Summer, but that this heat deſcends very ſlowly, a great part of it being communicated to the air.

That

THAT during the Winter the earth gives out to the air the heat it had accumulated during the Summer, and that on this circumſtance in a great meaſure the temperature of the Winter depends.

NOW as the earth muſt receive more or leſs heat during the Summer ſeaſon, according to the greater or leſſer freedom of acceſs which the ſun's rays have to it, and to the longer or ſhorter duration of their acceſs, it follows that whatever circumſtances have the effect of obſtructing or preventing this acceſs muſt diminiſh the grand ſource which moderates the rigour of the land winds, which prevail during the Winter ſeaſon. The principal circumſtances which obſtruct the action of the rays of the ſun upon the earth, are cloudy and wet weather, the effects of extraordinary evaporation.

THE evaporation from the lakes, ſwamps and foreſts in America is aſtoniſhing.

The evaporation from land covered with living vegetables is much greater than from that which is bare. The rays of the ſun are not only obſtructed by the evaporations from theſe immenſe foreſts, but where the trees are tall and cloſe together, they are entirely excluded from acting upon the ground at all.

Hence it may be preſumed that the woods, thickets, and height of the lands in North-America are the circumſtances which render the climates of the ſeveral ſtates different from, and leſs agreeable than the countries in the ſame latitude in Europe, where the lands are lower, and the country more cleared and better cultivated.

We alſo learn from the account of the diſeaſes contained in the preceding pages, that the cold of the northern ſtates properly guarded againſt, produces but few diſeaſes of a dangerous nature, and that Intermitting, Remitting or Bilious Fevers, and Fluxes, are ſcarcely ever known there; but in proceeding to the ſouthward in Maryland and Virginia, where the heat is more intenſe and of longer continuance, and the ſoil more moiſt, eſpecially upon lands in an imperfect ſtate of cultivation, the diſeaſes laſt mentioned are very prevalent, and often fatal, eſpecially to foreigners; though the natives who fix their habitations in dry and elevated ſituations, and obſerve a medium between exceſs and abſtinence, enjoy a tolerable ſhare of health.

IN South-Carolina and Georgia, Fevers and Fluxes are ſtill more epidemic, violent, and obſtinate, eſpecially after the Rice harveſt in Auguſt and September, when the waters are diminiſhed and permitted to ſtagnate and corrupt. The fevers which occur at this ſeaſon are very anomalous, neither intermitting nor remitting perfectly, but participating much of the nature of that commonly called the Yellow Fever, which is often ſo fatal within the Tropics.

ALTHOUGH the United States of America

cannot boaſt of the ſuperiority of their climates over other countries in parallel latitudes, they are exceeded by few in fertility of ſoil, and equalled by none in political advantages.

And, from whatever cauſes it may proceed, the inhabitants, in the middle and particularly in the northern ſtates enjoy a greater proportion of health, and live to a greater age than the inhabitants of Europe. The diſeaſes which do occur are more ſimple and uniform; and this country is intirely exempt from ſome of the moſt formidable and deſtructive which infeſt the other quarters of the globe.

The Spotted Peſtilence, the fatal offspring of famine, uncleanlineſs, and vitiated air, has never yet reached our favoured ſhores.

The Small-pox, the Meaſles, the Malignant Quinſy, the Influenza, and almoſt every other contagious diſeaſe were foreigners to this continent, till they were introduced through the medium of commerce from Europe, into which they were firſt conveyed from Aſia, or the dominions of the deſpotic Turk, bordering on that immenſe continent.

The Leproſy, the Yaws, the Eliphantiaſis, and other loathſome diſorders are endemic to Africa.

Whether Africa or South-America gave origin to the Syphilis remains uncertain, though that diſhonour is generally aſcribed to the latter.

Nor is North-America, like many other countries, ſubject to earthquakes, the eruption of volcanoes, hurricanes, periodical deluges, impetuous whirlwinds, noxious and conſuming blaſts of wind, or withering and protracted drought.

What does it avail the inhabitants of Aſia that many of their provinces are bleſt with the moſt delightful climate and fertile ſoil that imagination can conceive, ſince they themſelves are in ſubjection to the arbitrary will of a capricious and deſpotic tyrant.

ONE half of Africa lies beneath the burning line, and its ſable inhabitants are all immerſed in rude and diſmal barbariſm, entirely unacquainted with the uſe of the Plough and the Loom.

EVEN in Europe (the ſeat of Science and the nurſe of Arts) Liberty, "the moſt precious gift of heaven to man," is ſcarcely known, or only enjoyed by the lucky and the favoured few. The reſt are greater drudges than the beaſts they own; for there, ſociety is divided into two diſtinct claſſes, nobles and commons, lords and tenants: the former poſſeſſing and enjoying every thing; the latter indigent, oppreſſed, and almoſt deſtitute of the common neceſſaries of life.

NORTH-AMERICA is the only portion of this ſpacious globe where man can live ſecurely, and enjoy all the privileges to which he has a native right.

In this enviable and favoured region there is no proud—uſurping ariſtocracy—no eccleſiaſtical orders with excluſive privileges—no kings with arbitrary power or corrupting influence—no venal parliaments compoſed of different ranks and oppoſing intereſts—no monopolizing confederacies of opulent and intereſted traders and manufacturers, to the excluſion of thoſe to whom chance or fortune has been leſs liberal.

Nor are the taxes or expences of government ſo conſiderable as to conſume the profits of honeſt induſtry, or ever employed to gratify the ſplendid projects of mad ambition.

It is true none of the enervating refinements of luxury or diſſipation are to be found here; but here all the neceſſaries and conveniences of life abound, and a pleaſing equality and decent competence are every where diſplayed—here the dignity of the human ſpecies is reſtored, and man enjoys all the freedom to which he is entitled; for here he is a member of the government he obeys, and a framer of the laws by which he is governed, either in perſon or by the repreſentatives of his own choice.

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